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DELINQUENTS WITH MATURE MORAL REASONING: A COMPARISON WITH DELAYED DELINQUENTS AND MATURE NONDELINQUENTS

The Ohio State University

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DELINQUENTS WITH MATURE MORAL REASONING:
A COMPARISON WITH DELAYED DELINQUENTS
AND MATURE NONDELINQUENTS

DISSERTATION

Presented in Partial Fulfillment of the Requirements
for the Degree Doctor of Philosophy in the
Graduate School of the
Ohio State University

BY

Steven V. Schnell, B.A., M.S.

* * * * *

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PRESENTATIONS


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CHAPTER I

INTRODUCTION

The Integration of Developmental and Clinical Psychology

Kohlberg's theory of moral development relates delinquent behavior to delays in the development of social-cognitive structures. As such, the theory conceptualizes a behavior disorder using cognitive-developmental variables. The application of cognitive-developmental structures to the understanding of psychopathology fits under the general category of developmental psychopathology. Sroufe and Rutter (1984) define developmental psychopathology as "the study of the origins and course of individual patterns of behavioral maladaptation" (p. 18). Garber (1984), in discussing the classification of childhood psychopathology from a developmental perspective, helps to define developmental psychopathology by pointing out a number of important issues. These issues are the continuity between pathology at different ages and the definition of normality and deviance as they are influenced by age, context, developmental tasks, and development over time.
Kohlberg's approach fits under the specific category of developmental psychopathology from a constructive-developmental perspective. Noam et al. (1984) offer the following definition: "Developmental psychopathology from a constructive-developmental perspective refers to the intrapsychic and interpersonal aspects of psychological symptoms, maladaptive behaviors, and psychiatric disorders as they relate to the equilibrated structures and transitions of the ego (or self) and its subdomains (e.g., moral development, role taking, intellectual development) occurring throughout the life span" (pp. 184-185).

Developmental psychopathology brings together the knowledge and theories of developmental psychology, which has traditionally focused on normal development and commonalities in development, with clinical psychology, which has focused on abnormal behavior and how individuals differ from one another. There has been much recent interest in relating the two areas. Kendall, Lerner, and Craighead (1984) write that "A growing literature already exists on the potential for 'integrating' ideas across subdivisions of psychology...and for interfacing clinical and developmental psychology" (p. 72). Yet, the idea is by no means new. Cicchetti (1984) reminds us that the great systematizers in psychology "have taken as a basic working principle that we can learn more about the normal functioning of an organism by studying its pathology and,
likewise, more about its pathology by studying its normal condition" (p. 1).

The combining of the knowledge, theories, and techniques of developmental psychology and clinical psychology has potential payoffs for both areas. Some of these potential benefits are noted by Brion-Meisels and Selman (1985): "Thus, our objective is to demonstrate how the events of a troubled adolescent's life, seen through the eyes of a practitioner, can be understood through the organizing lens of a developmental model of interpersonal behavior. We also show how real-world, fast-paced, intuitive observations in clinical contexts pose problems that challenge the normative model's validity—and force it to accommodate to the complex, rich reality of all adolescent life. Thus, we speak to two audiences, practitioner and researcher, to interest each in the other's work, and to demonstrate the importance of the joint study of 'normality' and 'pathology' in social development" (p. 371).

An area of abnormal behavior that has been studied by both clinical and developmental psychologists is that of antisocial behavior. A combined approach in this area has the potential to assist in the conceptualization and treatment of adolescents with conduct disorders and juvenile delinquents and to further our knowledge concerning the
acquisition of values are factors that mediate the value-action or judgment-action link.

Kohlberg's Theory and Delinquency

Delinquency is the abnormal behavior toward which Kohlberg's theory of moral development has most often been applied. Because many juvenile delinquents conceptualize their environments and reason about moral situations in an immature and inadequate manner, their moral decisions and the subsequent behaviors are often socially unacceptable. Kohlberg's theory has generated two hypotheses regarding delinquency. First, the failure of delinquents to behave in accordance with social norms is related to their failure to develop age-appropriate moral reasoning. It has been demonstrated that delinquents as a group are at a lower level of moral reasoning than their nondelinquent peers (Blasi, 1980; Jennings, Kilkenny, & Kohlberg, 1983). Second, it has been hypothesized that this delay in moral reasoning is, in part, a result of the lack of role-taking opportunities provided to these adolescents (Gibbs, Arnold, Ahlborn, & Cheesman, 1984; Kohlberg, 1969).

This cognitive-developmental theory of moral development does not claim that immature moral reasoning causes delinquency, only that it can be consistent with delinquent behavior. The basis of stage 2 moral reasoning, instrumental self-interest and the inability to take a
third-person perspective, results in values being held conditionally. They are upheld when they are advantagous to the individual and transgressed when they are detrimental to the individual (Gibbs et al., 1984). More mature moral reasoning "isolates" one against delinquent behavior (Jennings et al., 1983) or provides a "cognitive buffer against antisocial influences and temptations" (Gibbs et al., 1984). This "buffer" is provided by norms being justified on such bases as mutual interpersonal expectations, empathic role-taking, and a concern with interpersonal approval.

Despite the fact that delinquents as a group reason at a level below that of nondelinquent peers, a "sizable minority" (Jennings et al., 1983) of delinquents reason at an age-appropriate level. The question arises as to how Kohlberg's theory can account for these nondelayed delinquents. This is an important issue for the theory to address and, yet, one which has received little attention (Jennings et al., 1983; Jurkovic, 1980). Jennings et al., (1983) state that "If moral judgment is necessary, [for consistent moral behavior] what other conditions are required for sufficiency? This question is the least explored and most problematic for moral psychology. It is also the most crucial for anyone contemplating applying theory in practice" (p. 292).
The limited number of studies examining stage 3 delinquents have generally done so by looking at subtypes of delinquents. Fodor (1973) found a greater percentage of psychopathic delinquents reasoning at a preconventional level than nonpsychopathic delinquents. A study by Jurkovic and Prentice (1977), using Quay's classification system, found psychopathic delinquents to reason at a significantly lower level than subcultural delinquents. Neurotic delinquents scored between the other groups, not differing significantly from the subcultural group and differing from the psychopathic group at a level of p<.10. Jennings et al. (1983) cites unpublished studies that demonstrate a greater amount of stage 3 reasoning among delinquents whose illegal activities supported a "hard-drug habit". It was found that 70% of the drug users had age-appropriate moral reasoning whereas only 35% of the nondrug users had developed to this level. Another study of delinquents (Ruma & Mosher, 1966) found a correlation between moral reasoning and guilt. Those delinquents higher in moral reasoning demonstrated a greater degree of guilt.

**Moral Reasoning and Behavior**

A central issue in relating moral reasoning to delinquency is the relationship of moral reasoning to behavior, or, the judgment/action issue. It is known that the causal link between moral judgment and behavior is not
always a linear one and that many factors mediate the relationship. Kohlberg's stages of moral reasoning are not defined as stages of action, but rather as cognitive-developmental structures that are consistent with cognitive development. Changes in stage definition over the years have attempted to separate content from structure and have resulted in a developmental model of cognitive-structural development that has strong empirical support (Kohlberg, Gibbs, and Lieberman, 1983).

However, as noted by Colby (1978), the core structures that are studied by Kohlberg have become more abstract and formal and as a result are further from "real-life", moral conduct, and personality. Kohlberg and Kramer (1969) admit that a structural model requires "abstraction from life history". This abstraction has been most productive in describing the development of cognitive structures related to moral reasoning. The price paid for abstraction, however, has been a greater distance from many factors that mediate judgment and action.

Because of these factors, Kohlberg's theory, as with all cognitive developmental theories, has certain limitations when applied to behavior. Blasi (1976) argues that cognitive structures provide a range of possibilities but that personality factors are involved in actualizing one of them. Blasi (1980) later commented that predicting behavior based on level of moral reasoning may be improved
by considering personality factors. Noam (1985) asserts that personality theorists in the Piagetian tradition present "a view of the person without history" (p. 322) and that it is important to consider personality styles. Selman (1980) argues that structural-developmental descriptions are of value, yet they are not sufficient to understand how people use their abilities. They do not present social functioning in a psychologically realistic manner.

Taking into account these limitations, many studies have explored or proposed how personality or emotional factors mediate the relationship between social-cognitive structures and behavior. A brief review of some of these studies follows.

Selman and Demorest (1984) proposed a "level X orientation model" of interpersonal negotiation strategies. This model combines the developmental variables of self-other construal, purpose, and affective control with "action orientation", a variable that relates to a "personality dimension".

Noam (1985) comments that cognitive-developmental personality theorists view personality as changing at each stage of ego development. To help account for the effects of an individual's history on current functioning and development he includes the factor of style along with stage (self-other relationship) and phase (developmental task). The two styles or orientations included in his model are a
boundary style and a relational style. A boundary style has a focus on independence and self-control while a relational style focuses on interpersonal relationships.

Defensive strategies and coping strategies are seen by Villenave-Cremer and Eckensberger (1985) as being important mediators of moral reasoning and behavior. They borrow from the work of Haan (1978) who believes that self-deception and defenses often disrupt morality and that "interpersonal reasoning" is more closely tied to moral behavior than "formal reasoning". Villenave-Cremer and Eckensberger acknowledge that conflicts arise between egocentric desires and moral standards. If individuals adopt defensive strategies, they will ignore or distort aspects of the conflict that will allow them to possibly act on their desires. If a coping strategy is used, they will accept, without distortions, all aspects of the situation that are available to them based on their level of moral development. Villenave-Cremer and Eckensberger conclude that "according to this perspective coping, not merely logical and social-cognitive abilities, is a necessary condition for the unfolding of moral judgment." (p. 178).

Dobert and Nunner-Winkler (1985) also look to intrapsychic distortions of reality to explain judgment/action gaps. They note two ways of not acting in accordance with one's cognitive competence. First, an individual can betray his/her convictions. Second, an
individual can subconsciously define or distort a situation so that he/she can act as he/she desires.

In looking at the competence/performance gap Jurkovic (1980) looks to noncognitive factors. Among these factors are "interfering or inhibiting processes (e.g., anxiety, emotional conflict)" (p. 722).

Ward and Wilson (1980) found that female undergraduates with esteem-oriented motivational styles acted in accordance with their moral judgments to a greater extent than those with safety-oriented motivational styles. They concluded that "The full understanding of moral action necessitates a moral development theory within an interpersonal context...Within this interpersonal domain, motives, as an important component of the personality structure, may mediate the social influence processes which underlie many types of social behavior, including moral action" (p. 285).

Waterman, Sobesky, Silvern, Aoli, and McCaulay (1981) did not find perspective taking to be related to antisocial behavior in their sample of preadolescent emotionally disturbed, learning disabled, and normal boys. This led them to conclude that "it may prove necessary to move to a second sphere of explanation, to consider motivational factors and thus acknowledge the potential limitations of a social-cognitive explanation for antisocial behavior" (p. 144).
Blasi (1985), following up on his earlier work of relating social-cognitive structures to behavior, defines two types of personality factors that affect moral behavior. The first type, which he labels "strong will", is not inherently moral, but relates to moral behavior. This type includes such factors as perspective taking, coping and defense mechanisms, perseverance, courage, and the ability to delay gratification. A second type is more directly moral in nature and these he labels "good will". Included in this type of personality functioning is the "affective and motivational orientation that people have...towards virtue, justice, altruism, briefly, towards the moral as each person understands it" (p. 435). This also includes an individual's tendency to include morality as part of one's identity.

The relationship of moral reasoning to behavior is a central issue in the relationship between moral reasoning and delinquency. The studies cited above suggest that personality or emotional factors mediate the relationship of moral reasoning and behavior and therefore the relationship between Kohlberg's theory of moral reasoning and delinquency. Because of this, personality factors may help to account for the antisocial behavior of stage 3 delinquents.
Moral Reasoning and Neurotic Processes

An approach that has not been used to study stage 3 delinquents is to compare stage 2 and stage 3 delinquents on various factors related to antisocial behavior. Using this design, it is hypothesized that stage 3 delinquents, as a group, will demonstrate personality and emotional characteristics that differ from stage 2 delinquents and from stage 3 nondelinquents. Differences are anticipated, in part, because of the more internal frame of reference represented by reasoning at stage 3 in comparison to stage 2.

One component of the formal properties of stages of moral reasoning is social perspective level (Kohlberg, Levine, & Hewer, 1983). Stage 2 individuals are aware of the needs of others, yet actions are "coordinated through acts of concrete reciprocity" (p. 42). Stage 2 reasoning is less aware of feelings, intentions, and expectations and is focused more on consequences and the individual's self-interest. There is also less of an ability for the appreciation of mutuality in relationships.

Stage 3 individuals, on the other hand, perceive others "in the context of shared role expectations in personalized relationships" (p. 42). Prosocial feelings, mutual relationships, intentions, and expectations play an important role in judgments. This greater awareness of
internal states is likely related to a greater capacity for empathy and guilt. This increased awareness results in greater emotional conflict as there are more restrictions and demands that conflict with self-centered desires.

Stage 2 individuals curtail or delay egoistic desires when they feel it will result in personal gain or the avoidance of personal loss. These gains and losses are defined generally on a concrete level. Stage 3 individuals, however, curtail or delay egoistic desires to conform to expectations, to avoid painful empathic responses, or to give to another individual in a mutual relationship. The increased awareness and the resultant restrictions on egoistic desires may result in emotional conflict, anxiety, and neurotic symptomatology that relate to antisocial behavior in two ways. First, Weiner (1970) interprets the behavior of neurotic delinquents as not reflecting cognitive delays, but rather the communication of psychological needs. Marshall (1983) and Blos (1979) also see in the delinquent's behavior the communication of needs. Similarly, the antisocial behavior may be a defensive response to relieve or resolve emotional conflicts, anxiety, or neurotic processes (Marshall, 1983; Offer, Marohn, & Ostrov, 1979). As such, neurotic processes could play a causative role in the antisocial behavior.

A second possible relationship is that of antisocial behavior playing a causative role in a neurotic response.
Stage 3 individuals hold values on a more consistent basis than do stage 2 individuals. Because of this, they are more likely to be acting in opposition to their values when they act in an antisocial manner. Because of their more internal focus, they are more likely to be aware of this "gap" between their expected behavior and their actual behavior. If they are prone to neurotic reactions, this conflict may result in anxiety and neurotic symptoms.

Based on these two possible relationships between antisocial behavior and neurotic symptoms it is hypothesized that stage 3 delinquents will demonstrate a greater degree of internal conflict and guilt with the resultant neurotic symptoms. Stage 2 delinquents are expected to show little guilt and empathy and to be limited in their ability to relate to others in a meaningful way. Consistent with these anticipated differences, Ruma and Mosher (1966) found guilt to correlate with moral reasoning in a delinquent population and Jurkovic and Prentice (1977) found a trend toward neurotic delinquents reasoning at a higher level of moral reasoning than psychopathic delinquents (p<.10).

Neutralization

To avoid the dissonance caused by the judgment/action gap or to make antisocial behavior a more acceptable response to psychological needs it is likely that stage 3 delinquents attempt to justify their antisocial behavior.
It has been suggested that delinquents circumvent prohibitions against antisocial behavior through a process called neutralization (Lanza-Kaduce, Radoevich, & Krohn, 1983; Sykes & Matza, 1957). Neutralization refers to the justification of rule breaking. Sykes and Matza (1957) proposed that neutralization is similar to rationalization, yet it takes place before an action and allows an individual to perform the act without compromising his/her self-image. They argue "that much delinquency is based on what is essentially an unrecognized extension of defenses to crimes, in the form of justifications for deviance that are seen as valid by the delinquent but not by the legal system or society at large" (p. 666).

Sykes and Matza (1957) propose five "techniques of neutralization". In "denial of responsibility" the actor is absolved of responsibility for the action (e.g., it is attributed to fate). For "denial of injury" it is argued that little or no damage was done. In "condemnation of the condemner" the action is justified on the basis that the condemner is blameworthy and deserving of harm. "Appeal to a higher loyalty" suggests that a higher good was served or that the individual was obliged to act in a certain way because of other loyalties or concerns. Finally, "denial of the victim" is based on the argument that the victim is not really a "victim" and being treated unfairly, but is only receiving his/her rightful retaliation or punishment.
Studies have demonstrated that those who engage in behavior that is inconsistent with social norms use neutralization to a greater extent (Ball, 1966; Priest & McGrath, 1970). It has also been found in a nondelinquent population that individuals at higher levels of moral reasoning use fewer "techniques of neutralization" than those at lower levels (Radosevich & Krohn, 1981). A later study (Lanza-Kaduce et al., 1983), though, failed to find a correlation between moral reasoning and neutralization. Variations in the use of neutralization among delinquent subgroups has not been studied. Neutralization is a possible factor in the apparent gap between the moral reasoning of delinquents with age-appropriate reasoning and their delinquent behavior. It is hypothesized that delinquents with age-appropriate moral reasoning will use neutralization to a greater extent than those with a lag in moral reasoning ability. Also, delinquents as a group are expected to utilize neutralization to a greater degree than nondelinquents.

Values

It is likely that the majority of adolescents who experience neurotic symptoms do not act out in antisocial ways. Thus, the presence of neurotic processes does not explain why, in some cases, antisocial behavior results from this process. Values may play a role in the relationship of
neurotic processes and psychopathology to antisocial behavior. Values, like neutralization, can serve to negate the judgment/action gap. If one's values allow for antisocial behavior, then there is no dissonance-causing gap between one's values and one's antisocial behavior.

Consistent with this view, it is argued by some that the content of moral reasoning, along with the structure of moral reasoning, is related to behavior (Kuhn, 1978) or even more closely related to behavior (Blasi, 1983). Jurkovic (1980) states that "Thus moral content (e.g., tolerance of deviancy) may account for a significant proportion of the variance in moral (delinquent) conduct that is not captured by moral structure alone" (p. 723). The values that are held by certain adolescents who have developed age-appropriate moral reasoning may help to explain why they, none the less, take part in antisocial behavior.

Johnson (1979) and Cernkovich (1978) have found value orientations to differ for delinquents and nondelinquents. Quay (1964) isolated a subgroup of delinquents who adhere to "subcultural" values. It is possible that some youth, even though they have developed age-appropriate moral reasoning, accept "subcultural" or "subterranean" values (Cernkovich, 1978). This allows them to more easily engage in antisocial behavior and avoid the dissonance caused by a gap between their beliefs and their behavior.
Little is known about the values of stage 3 delinquents. It is hypothesized, though, that stage 3 delinquents will endorse "subterranean" values to a greater extent than stage 3 nondelinquents. This hypothesis is based on a number of factors. First, as was noted, some argue that values are important determinants of behavior and, as such, can overpower the influence of moral structure on behavior. Second, if stage 3 reasoners are more likely to experience guilt and anxiety in response to conflicts between expectations and their actual behavior then the acceptance of values that allow for antisocial behavior would serve the defensive purpose of reducing guilt and anxiety. Finally, consistent with the belief that subcultural delinquents are less disturbed than other delinquents (Wenar, 1982), stage 3 delinquents may act in antisocial ways not because of social-cognitive delays or psychopathology, but because of deviant socialization.

Definition of Delinquency

The criterion of delinquency used in this study is adjudication and placement in a training center for delinquent youth. While the bifurcation of adolescents into adjudicated and nonadjudicated is convenient and clear, the use of it as a criterion for antisocial behavior is problematic. The shortcomings of a legal definition of delinquency are commonly noted (Emler, 1983; Johnson,
1979). It can not be assumed that both groups are homogeneous and are exclusive of each other. There is a great variation among adjudicated delinquents in their antisocial behavior. Also, many antisocial acts are committed by adolescents who are not adjudicated. An additional problem is encountered when one attempts to study the judgment/action gap. As is noted by Blasi (1980), one can not assume that all delinquents' antisocial behavior put them at odds with their moral judgments. It is possible that their antisocial behaviors were in accordance with their moral judgments.

Delinquent behavior can vary in type, amount, and severity (Deschner, Plain, Terhune, & Williamson, 1981; Hindelang, Hirschi, & Weis, 1981; Johnson, 1979; Wadsworth, 1979). The current literature on the relationship of these variables to subtypes of delinquents is somewhat inconsistent. Some studies find no difference among subgroups (Jurkovic & Prentice, 1977; Robins, 1966) and others do find a difference (Jennings et al., 1983; Thornton & Reid, 1982). Jennings et al. (1983) cites two unpublished studies as showing that more stage 3 delinquents' illegal activities support a "hard-drug habit". Thornton and Reid (1982) found the offenses of stage 3 adult offenders to more often consist of crimes against persons and to not involve financial gain. Because of the inconsistencies in the research related to this issue, the
current investigation into type and severity of delinquent behavior is considered to be exploratory.

**Role-Taking Opportunities**

Wenar (1984) notes that the social context of cognitive and emotional functioning and development is "relatively crudely delineated" (p. 60). He goes on to say that "the problem of understanding the child's interpersonal setting may well prove a particularly difficult undertaking, not only because of the complexity of the interpersonal environment but also because of the relative paucity of theoretical guidelines. Piaget's genius, like Freud's, flourished in the intraindividual realm" (p. 60). Despite the accuracy of this statement, Kohlberg's theory of moral development does hypothesize that the basic social stimuli of moral development are role-taking opportunities (Kohlberg, 1969). Kohlberg claims that participation in family, peer groups, and social institutions stimulates moral development only insofar as it provides role-taking opportunities.

Based on this theoretical assumption and on data (West, 1982) that show families of delinquents to often be disorganized and the parent-child relationship to be typified by inconsistency and power assertion (and therefore, presumably lacking in role-taking opportunities), it has been suggested that the lack of role-taking opportunities is related to delinquency (Campagna & Harter,
1975; Gibbs et al., 1984). However, the concept of role-taking opportunities has not been operationalized and the direct measurement of role-taking opportunities has not been employed to test this assumption. In addition, according to Kohlberg's theory, role-taking opportunities should be related to delinquency only insofar as lags in moral reasoning are present. Because of this, stage 3 delinquents should not be found to have experienced fewer role-taking opportunities. Therefore, it is hypothesized that delinquents whose moral reasoning is delayed will evidence fewer role-taking opportunities than both delinquents and nondelinquents whose moral reasoning is age-appropriate.

Implications

Findings from this research could have both theoretical and clinical implications. It is anticipated that the results will demonstrate a relationship between level of moral reasoning, personality and emotional factors, and other related variables. This will allow for speculation as to the relationship between the cognitive-structural variable of moral reasoning and personality as to the relationship between moral reasoning and behavior. The immediate clinical value of this research lies in its potential to aid in the understanding and conceptualization of antisocial behavior. As noted by Marshall (1983), this
is a necessary first step in providing successful intervention in an area that has proven resistant to treatment efforts.

The results of this research will address the question of whether subtyping delinquents into those with age-appropriate moral reasoning and those who are delayed provides information about their general level of functioning and behavior. This may help to understand whether this is a useful subclassification of delinquents with practical treatment implications. The cognitive-developmental approach to the treatment of delinquents (Gibbs et al., 1984) targets individual's level of sociomoral development as the focus of treatment. The results of this study may indicate factors in addition to cognitive structures that may need to be addressed for cognitive-developmental interventions to be effective. Finally, if a relationship is found between moral-cognitive structures and personality variables, it will suggest future research into the developmental relationship of these variables to each other. An important direction for research would be to determine if one of the variables is necessary or sufficient for the development of the other. Research into this question could have a major impact on treatment. For example, if it were found that personality development in certain areas (possibly the ability to form age-appropriate relationships) is a prerequisite for
cognitive-developmental gains beyond a certain level (possibly the transition from stage 2 to stage 3) this would dictate the focus of treatment. The present research is a necessary first step to research in this area.

**Hypotheses**

**Hypothesis 1.** Stage 3 delinquents, in comparison to stage 2 delinquents, will demonstrate a greater amount of internal conflict and neurotic symptoms.

**Hypothesis 2.** Stage 3 delinquents will utilize neutralization to a greater extent than stage 2 delinquents.

**Hypothesis 3.** Both stage 2 and stage 3 delinquents will utilize neutralization to a greater extent than the nondelinquent controls.

**Hypothesis 4.** Stage 3 delinquents will endorse subterranean values and accept antisocial behavior to a greater extent than stage 3 nondelinquents.

**Hypothesis 5.** Stage 2 delinquents will report fewer role-taking opportunities than stage 3 delinquents and stage 3 nondelinquents.
CHAPTER II

METHOD

Subjects

Delinquent subjects. The delinquent subjects were all adjudicated male youth who were incarcerated in locked state facilities in a midwestern state. The facilities were located in a large urban area. All had been convicted of at least one felony and most had lengthy criminal records. Subjects were solicited at two juvenile facilities. All individuals at one facility between the ages of 15 and 17 with at least a fourth grade reading level were asked to take part in the study. All the individuals at a second facility who were either 15 or 16 and had at least a fourth grade reading level were also asked to take part. These ages were used because it was felt that they would provide large numbers of both stage 2 and stage 3 delinquents.

One hundred and thirty-three juveniles, approximately one third of the juveniles at these facilities, met the age and reading level requirements and so were eligible for the study. Of this number, 113 chose to take part in the study.
Of the 20 who did not, five were excluded due to lack of parental permission. The remaining 15 individuals either declined to take part in the study or were transferred or released before the study began. Ninety-seven subjects completed the entire experiment. Of the 16 that started and failed to complete the study, eight were released or transferred, four declined to continue, one escaped, and three were asked to discontinue because of a failure to respond seriously to the questionnaires. The results of ten subjects who completed the study were not used in the data analysis because of unscorable Sociomoral Reflection Measures (SRM; 5) and invalid MMPI protocols (5; based on MMPI profile configurations that resembled random responding protocols).

All prospective subjects were given a written description of the study (see Appendix A) and a memo from the Department Superintendent requesting that they take part. The only inducement offered was a cigarette and soda break during each testing session. A description of the study and consent form were sent by the facilities to the parent or guardian of each prospective subject.

The delinquent sample ranged in age from 15.3 to 17.9 with a mean of 16.6. Thirty-three subjects (38%) were from large urban areas (over 100,000 population) with the remaining 53 (62%) being from more rural areas. Seventy-four subjects (86%) were caucasians and 12 (14%)
were black. Based on the Revised Duncan Socioeconomic Index (Stevens & Featherman, 1981) the delinquent sample's SES ratings ranged from 14 to 83 with a mean of 28.3. Examples of occupations of parents typical of scores close to the mean are mechanic (25), key-punch operator (32) and hair stylist (26).

Forty subjects (47%) had been previously placed in youth training facilities. Twenty-one of the delinquent subjects (24%) had committed crimes against persons (e.g., assault). Twenty-six subjects (30%) had at some time been convicted of crimes associated with drugs or had received treatment related to the use of drugs. Approximately 60% were currently incarcerated because of theft related offenses (e.g., grand theft, breaking and entering).

Prior to incarceration, 22 subjects (26%) were living with both of their natural parents and 28 (33%) lived with a single natural parent (25 with their mother). Thirteen subjects (15%) lived with a parent and stepparent and 16 (19%) lived in a group home or public facility. Eight subjects' living situation did not fit into any of these categories, e.g., lived with an uncle or sister.

To be included in the data analysis each subject needed to complete a scoreable SRM and MMPI. Many subjects were dropped from analyses that involved covarying SES or Quick Word Test (QW) scores because of missing data. SES data was lacking for 19 delinquent subjects. Most of these subjects'
parents were not working and could not be given an SES rating. Fourteen subjects did not have QW scores. These subjects either did not complete the QW or responded in a random manner.

Based on Chi-square analyses, subjects without SES scores were not disproportionally represented in the mature or delayed delinquent groups. This suggests that the lack of SES scores did not introduce a bias in the comparison of mature and delayed delinquents. However, it does tend to weaken the ecological validity of the results.

Subjects without QW scores were represented to a greater degree in the delayed delinquency group based on modal scores ($X(1,87)=5.23, p<.05$) and global (stage 2 versus stage 3) scores ($X(1,43)=4.96, p<.05$; Yates correction used). This may have added a bias into the comparison of delayed and mature delinquents in which QW was covaried and also may have weakened the ecological validity of the results.

Nondelinquent subjects. The nondelinquent subjects all attended a public high school in a rural area of the Midwest. A random sample of 50 male tenth, eleventh, and twelfth graders were asked to take part in the study. They were given a description of the study (the same description as the delinquent sample with the relevant changes made) and a consent form for them and their parents to sign (see
Appendix B). Forty-two subjects chose to participate. All who started the study completed the entire experiment.

The nondelinquent subjects ranged in age from 15.5 to 18.9 with a mean of 17.0. All subjects were caucasians from rural areas. Based on the Revised Duncan Socioeconomic Index the nondelinquent sample's SES ratings ranged from 18 to 77 with a mean of 46.1. Examples of occupations of parents close to the mean are medical secretary (44), construction manager (40), and insurance agent (54).

The principal of the high school was unaware of any subject who had been incarcerated for a felony. Four subjects (10%) admitted to having been convicted of breaking the law. Two of these were described as misdemeanors and two were theft. School files contained no indication of serious behavior problems at school. Two subjects were dropped from the study because their SRM's were unscorable. Twenty-nine subjects (72%) were living with their natural parents and four (10%) were living with a parent and stepparent. Seven (18%) were living with a single parent.

**Procedures**

**Delinquent sample.** Most subjects were tested in two, two-hour sessions. Each two hour session had a ten minute soda and cigarette break. Those who were unable to complete the material in the two sessions or missed part or all of one of the sessions (approximately 30%) returned for a third
session. Subjects were tested in groups that ranged from 17 to 30 for the first two sessions and from 5 to 21 for the third session. Testing took place at a time when no other activities were scheduled except visiting hours. A small number of subjects left the testing because they had visitors. A number of subjects remarked that the experiment was more enjoyable than sitting around the unit and watching television.

Subjects were escorted to the sessions by staff members. These staff members were present during the sessions to supervise the subjects along with the examiner and an assistant. The instructions given the subjects are contained in Appendix C. At the beginning of the first session subjects were given a consent form to sign (see Appendix B). They again were given a brief description of the study and what they would be asked to do (see Appendix A). The consent form was read to them. They were then allowed to ask questions concerning the study and their participation before signing the consent form. Five subjects chose not to participate at this time. Subjects were asked to put their first name, last initial, and group number on the questionnaires. They were assured of the confidentiality of their responses and were encouraged to ask questions if any should arise.

All subjects were given the same questionnaires to complete during the first session. These were the SRM,
Opportunity for Role Taking Measure (ORT), Neutralization Measure, and the QW. Subjects received the measures stapled together with all but the QW arranged in counterbalanced order. For all subjects the QW was last in the packet. It was felt that the QW could be perceived as a boring, tedious task and would be the measure most likely to produce a negative or oppositional response in the subjects. To prevent this possible reaction to the QW from affecting responses to other measures it was presented last.

The second session was held one week after the first. The introduction for the second session (see Appendix D) consisted of a reminder of confidentiality, the soda and cigarette break in the middle, and that only their first name, last initial, and group number should be put on the questionnaires. Subjects were given the values questionnaires and the Self-Report Delinquency Measure (SRDM) in counterbalanced order. They were also given the MMPI answer sheet at this time to make sure everyone put their names on them. They were told that they would receive the MMPI booklet after completing the values questionnaires and SRDM. Subjects were asked to be careful when completing the MMPI and be sure the item number in the booklet matched the number on the answer sheet. They were warned that if they mixed up the numbers or filled in the answer sheet randomly that it would show in the scoring and that they may be asked to redo the MMPI.
The MMPI was completed last by all subjects for the same reason that the QW was completed at the end of the first session. It was possible that some subjects would be intimidated or bored by the length of the MMPI and that this could adversely affect their cooperation. It was hoped that presenting the MMPI last and by itself would minimize its adverse effect on the test-taking set of the subjects. It was felt that completing the values questionnaires and SRDM would have minimal impact on completion of the MMPI and that it was more important to attempt to minimize the possible adverse effects of the task of completing the MMPI.

The order of the tests were not counterbalanced across the two sessions for a number of reasons. To minimize the effect on other measures of the possible adverse reaction to the lengthy and tedious MMPI, the MMPI was completed only after all other measures had been completed. The measures were arranged in a way so that most subjects could complete each packet within the two hour time limit of each session. The SRM was too lengthly to complete along with the MMPI in a two hour session and it was felt that pairing the MMPI with the QW would be too tedious for subjects.

**Nondelinquent sample.** The nondelinquent subjects completed the same measures as the delinquent subjects with the exception of the MMPI. Time constraints on the availability of the nondelinquent subjects and the
availability of relevant MMPI norms resulted in the dropping of the MMPI for the nondelinquent sample.

All subjects were tested in two, one-hour sessions. Subjects were given fruit drinks during the second session to approximate the incentives provided the delinquent subjects. Cigarettes were not provided because of the anticipated objections of parents and school officials and because it was felt that they would be much less motivating than they appeared to be for the delinquent sample. Fruit drinks were provided in place of soda because the session was held in the morning.

The testing sessions were held in a medium sized auditorium with all 42 subjects being tested at one time. Subjects were excused from their regularly scheduled classes to take part in the study.

Two weeks prior to the first session each subject was given a description of the study (see Appendix A) and a consent form (see Appendix B) for him and his parents to sign. The signed consent forms had been returned to the school principal before the first session or brought to the first session. The school principal was present to introduce the study and along with the experimenter supervised the sessions. The introduction procedure used with the delinquent sample was used with the exception that consent forms had been signed prior to the first session.
The measures were completed in the same order as with the delinquent sample. The SRM, ORT, NM, and QW were stapled together in a packet with the first three being in counterbalanced order and the QW being last. Subjects were told that most of them would probably not complete the packet during the first session.

The second session was held one week after the first session. The introductory procedure was not identical to the one used with the delinquent sample because the MMPI was not administered and the sessions were only one hour long. Subjects were reminded of the confidentiality of their responses and were told to only put their first name, last initial, and grade level on the questionnaires. Subjects who had not completed the packet from the first session were given their packets to complete. When these were completed they were given the second packet that consisted of the Values Questionnaire and SRDM in counterbalanced order. Nondelinquent subjects completed the measures in the same order as the delinquent sample with the MMPI being omitted.

**Measures**

**Measure of moral reasoning.** The Sociomoral Reflection Measure (SRM; Gibbs & Widaman, 1982) is a production task that provides a measure of reflective sociomoral reasoning. It consists of two dilemmas followed by questions that elicit reasoning about the dilemmas (see Appendix E). The
SRM functions as a group-administrable alternative to Kohlberg's Moral Judgment Interview (MJI). Two types of scores reflecting the level of moral reasoning are calculated. The modal stage score is the most frequently used stage and it ranges from one to four. It does not reflect the amount or level of reasoning at stages other than the modal stage. The Sociomoral Reflection Maturity Score (SRMS) reflects reasoning at the modal level and other levels, with possible scores ranging from 100 to 400. Another score, the global score, is a developmental categorization of the SRMS. The global score consists of a stage level, or, if it falls between two stages, a major stage and a minor stage. There are ten global ratings. Acceptable levels of test-retest, parallel-form, interrater, internal consistency, and concurrent validity with the MJI have been demonstrated (Gibbs, Widaman, & Colby, 1982).

Three methods of defining the criterion groups were used. These three methods resulted from using the two different types of scores generated by the SRM and by defining mature and delayed moral reasoning in different ways. The norms provided by Gibbs et al. (1979) were used as guidelines for expected level of moral reasoning as measured by the SRM. A sample of tenth and eleventh graders with a mean age of 15.2 achieved a mean SRMS of 287.3 (global 3), with 20 out of 23 having a modal score of stage 3 or above. A sample of college students with a mean age of 18.6 had a
mean SRMS of 342.8 (global 3(4)), with 50 out of 51 having a modal score of stage 3 or above. Based on these data, moral reasoning dominated by stage 3 reasoning or above can be considered age-appropriate (labelled as "mature" in this study) for the subjects in this study.

Both modal scores and global scores (qualitative categorizations of SRMS) were used. For modal scores, mature moral reasoning was defined as a modal stage score of 3 or above. Delayed moral reasoning was defined as modal stage 2 reasoning.

Global scores were used for two methods of distinguishing mature and delayed moral reasoning. Both methods defined mature moral reasoning as global stage 3 or above (SRMS of 275 or above). Two different methods of defining delayed moral reasoning were used. First, all scores below global stage 3 (global 3(2) and below; SRMS of less than 275) were defined as delayed. The second method used was to define as delayed only those at or below global stage 2 (global 2 and below; SRMS of below 225). Those scoring at global 3(2) and global 2(3) (SRMS of 274 to 226) were excluded when this second method was used.

The first method of defining delayed moral reasoning, global scores of less than global stage 3, contrasts subjects with predominantly stage 3 moral reasoning with those whose moral reasoning contains at least a moderate amount of stage 2 moral reasoning. The value of using this
definition of delayed moral reasoning lies not only in the comparison made between the groups, but also in the fact that all subjects are used in the analysis. Because of this, the results have greater ecological validity and therefore, greater clinical utility.

The second definition of delayed moral reasoning, global stage 2 and below, contrasts subjects with primarily stage 3 moral reasoning and above with those with primarily stage 2 reasoning and below. This method eliminates subjects that demonstrate a substantial amount of both stage 2 and stage 3 reasoning and therefore is more likely to accentuate the differences that are present. While this reduces the ecological validity, it is theoretically interesting because of the contrast between stage 3 and stage 2. The use of both of these methods of defining the criterion groups allows for distinguishing between factors associated with the failure to develop any significant amount of stage 3 reasoning (pure stage 2 reasoning) and those associated with the presence of stage 2 reasoning (failure to consolidate stage 3 reasoning).

**Measure of personality.** The Minnesota Multiphasic Personality Inventory (MMPI) is an objective, self-report measure of personality. It is an instrument that is commonly used in the study of crime and delinquency (Butcher & Tellegen, 1978; Lanyon, 1968). Studies have shown the MMPI to differentiate between delinquent and nondelinquent
samples (Lanyon, 1968), and, of special relevance to the present study, to differentiate between neurotic and psychopathic delinquents (Genshaft, 1980; Gregory, 1974).

Butcher and Tellegen (1978) recommend that raw scores be used when analyzing MMPI data for research. A problem arises, though, when using adolescent MMPI data. Marks et al. (1974) norms for adolescents provide separate norms for 15, 16, and 17 and 18 year olds. Because of this, their raw scores are not directly comparable. Therefore, standard scores must be used. Marks et al. (1974) provide adolescent norms for the three validity scales and the ten clinical scales. Adolescent norms are not provided for Es, R, Mac, and A scales and therefore raw scores were used in the analyses.

The three validity scales (L, F, K) are used to evaluate the test taker's approach to the task of completing the MMPI. These scales help to identify deviant response styles that could indicate that the profile is not valid. Of particular interest in assessing validity is the F scale. The F scale consists of 64 items that were answered in the scored direction by fewer than 10% of the original adult normative sample. A high F scale score (t-score greater than 80) suggests the possibility of random responding, inability to understand the items, faking bad, or "flag waving", e.i., a call for help (Marks et al., 1974; pp. 12-18).
The proper use of the F scale with adolescents, especially juvenile delinquents, is not clear. Adolescents as a group score higher on the F scale than do adults (Marks et al., 1974). High F scale scores are particularly common among juvenile delinquents. Hathaway and Monachesi (1961), in their book of adolescent MMPI codes, labeled as invalid protocols with F scores of greater than 15 (based on the Marks et al. (1974) norms, t-scores of 61, 62, or 65 depending on the age). Despite this, they indicated that many of these profiles would probably be acceptable. An F scale score of greater than 21 (Marks et al. (1974) t-score of 72 or 78 depending on the age) was labeled as "ultrahigh" and the protocol was felt to be unacceptable.

Unlike Hathaway and Monachesi, many believe that a high F scale score alone is not a valid or useful criterion for declaring MMPI profiles invalid (Gynther, 1961; McKegney, 1965). McKegney (1965) concluded that a raw score of greater than 16, the usual criterion for invalidity, should not be applied to the protocols of most delinquents. He suggested that "the high F scale score obtained by most juvenile delinquents is a realistic reflection of certain unusual attitudes, feelings, and behaviors actually found in delinquents as a group..." (p. 201).

Marks et al. (1974), in computing their adolescent norms, did not eliminate any profiles on the basis of high F scale scores. However, they warn that t-scores of 80 or
above may indicate random responding, inability to understand the items, faking bad, or "flag waving". The recent study by Genshaft (1980) also did not eliminate any MMPI profiles of delinquents solely on the basis of high F scale scores.

For the current study, no profiles were eliminated because of high F scale scores. Four MMPI protocols were dropped from the study. These protocols were eliminated because they resembled random responding protocols (Graham, 1979).

The MMPI was selected for use despite the possible usefulness of other measures. A commonly used typology for the classification of delinquents is that of Quay's (1979). Quay classifies delinquents on the basis of the results of three instruments: Behavior Problem Checklist (BPC), Personal Opinion Study (POS), and Checklist of the Analysis of Life History Data. While the use of self-report, observational, and life-history data provides a solid data base, the required cooperation of individuals familiar with the adolescent to complete the BPC is not always available. If the BPC is not used, problems may arise in the classification of delinquents (Bernstein, 1981; M. P. Gavaghan, personal communication, 1983). In addition, unlike the MMPI which provides personality descriptions for all common configurations of responses, Quay's three
measures allow only for classification into one of three categories: psychopathic, neurotic, and subcultural.

A measure similar to the BPC that could have been of potential use in this study is the Child Behavior Checklist (CBC; Achenbach, 1982; Achenbach & Edelbroch, 1983). This measure yields a Child Behavior Profile in two areas: behavior problems and social competence. There are nine "narrow band" classifications within the behavior problem profile (e.g., schizoid, depressed, and aggressive) that are organized under one of two "broad band" classifications (internalizing and externalizing). As with the BPC, this measure is completed by a person familiar with the child (a staff member in the case of the delinquent sample). The CBC was not used in the present study because of the excessive demands it would have placed on participating facilities.

Another measure commonly used with delinquents is the California Psychological Inventory. This objective, self-report measure of personality is similar to the MMPI (the measures have 178 items in common) and has been shown to distinguish between delinquents and nondelinquents (Laufer, Skoog, & Day, 1982; Megargee, 1972). While it has recently been found to distinguish among offenders on the basis of ego control, interpersonal maturity, and social maturity (Laufer et al., 1982), its utility for distinguishing among delinquents on the basis of variables relevant to the present study has not been demonstrated.
Measure of role-taking opportunity. The Opportunity for Role Taking measure (ORT) was designed for this study based on Kohlberg’s (1969) definition of role-taking opportunity (see Appendix F). Kohlberg postulates that role-taking opportunities in the family, peer group, and institutions (e.g., school) are of similar importance in stimulating moral development. Two dimensions of social interaction are viewed as important: the amount of social interaction or communication and the centrality or extent of involvement of the individual in the communication and in the decision-making process. It is reasoned that the more responsible people are not only for themselves, but also for the behavior and decisions of a group, the greater the requirement for awareness of other’s perspectives.

Based on these criteria and elaborations on them (Gibbs, et al. 1984; Campagna & Harter, 1975), 47 items were written to reflect role-taking opportunities or the lack of role-taking opportunities. Subjects are asked to rate on a three-point scale ("not true or rarely true", "somewhat true or sometimes true", "very true or often true") how often the item is true of their past experience. A total role-taking opportunity score is calculated by summing responses to each item (not true or rarely true = 0, somewhat true or sometimes true = 1, very true or often true = 2 for items indicating role-taking opportunity and reversed for those indicating a lack of role-taking opportunity). The higher
the score the greater the amount of role-taking opportunities the individual has experienced.

**Measure of neutralization.** The questionnaire utilized by Lance-Kuduce et al. (1983) and Radosevich & Krohn (1981) was modified to make it more appropriate for the subjects of the current study. The original questionnaire consisted of three short vignettes followed by questions as to the moral and legal status and appropriate punishment for the behaviors in the vignettes. The vignettes are then modified to incorporate mitigating circumstances that correspond with four of the five "techniques of neutralization" proposed by Sykes & Matza (1957). These techniques are denial of responsibility, denial of injury, condemnation of the condemner, and appeal to higher loyalty. Subjects are asked to respond to each question by checking the appropriate answer on a five-point scale. After each modification, subjects are asked four questions concerning how right or wrong the behavior was both morally and legally, how right or wrong it legally should be, and how severely the behavior should be punished.

The questionnaire was modified for the current study (see Appendix G). A vignette dealing with moving out of an apartment without giving proper notice was dropped because of its inappropriateness for the population being studied. Lance-Kaduce (personal communication, April 4, 1985) indicated that the deleted story was psychometrically the
weakest of the three vignettes and that using the measure without this vignette would likely not affect its reliability or validity.

Four scores were derived from the Neutralization Measure. The first set of scores consists of the original responses to the two vignettes. These scores are not neutralization scores, but rather judgments about how right or wrong (both morally and legally) and how deserving of punishment behaviors in the vignettes are. There are eight of these scores (four questions for each of two vignettes) and the range of possible scores is from 0 to 3.

Each question was scored for the presence or absence of a neutralization response. The scores to both vignettes were combined to calculate all of the types of scores with the exception of the original ratings. In other words, if a question elicited a neutralization response for either of the vignettes, it was scored as a neutralization response. If a subject decreased his rating of the wrongness of a behavior in response to changes in the circumstances consistent with a neutralization technique, then the response was scored as a neutralization response.

The second set of scores was the scores for each type of neutralization. The scores for each type of neutralization consist of the sum of neutralization responses to the four questions related to that type of neutralization. Therefore, the scores range from 0 to 4.
The third score consisted of the sum of responses to each type of question: moral rightness, legal rightness, whether it should be legally right, and how severely the behavior should be punished. These scores range from 0 to 4.

The final score was a total neutralization score. This was calculated by summing the neutralization responses to all of the questions. This score ranged from 0 to 16.

Measures of values. Two measures of values were used. The first one is the questionnaire used by Segrave & Hastad (1983). This is a shortened version of the Personal Values Questionnaire (Cernkovich, 1978) that measures "subterranean" and "conventional" value orientations (see Appendix H). Subterranean value orientation supports short-run hedonism, thrills, toughness, and the ability to con or dupe others. Conventional value orientation includes the valuing of deferred gratification, hard work, practicality, progress, and secular rationality. The subterranean values questionnaire (SVQ) consists of 24 statements and subjects are asked to rate the degree to which they agree with each statement on a five-point scale ranging from "strongly agree" to "strongly disagree." Each individual receives one value score that is the summation of responses to each item. For those items reflecting subterranean values, "strongly agree" is scored 4 and "strongly disagree" is scored 0. The order is reversed for
the conventional values items and therefore the higher the score the greater the acceptance of a subterranean values orientation.

Using this questionnaire, Segrave & Hastad (1983) replicated the findings of Cernkovich (1978) with a sample of male and female adolescents. It was found that delinquents endorsed subterranean values to a greater extent than nondelinquents.

A second measure of values used in this study was the measure used by Johnson (1979; see Appendix H). Johnson's Values Questionnaire (JVQ) consists of rating six behaviors on how often each is acceptable. The possible responses range from zero to four. The score consists of the sum of the responses with a high score indicating the acceptance of antisocial behavior.

**Measure of self-report delinquency.** Johnson's (1979) measure of self-report delinquency, supplemented with four questions on involvement with drugs, was used in the present study (see Appendix I). Johnson's measure consists of eight questions related to three types of delinquent behaviors: theft, vandalism, and assault. The Self-Report Delinquency Measure (SRDM) asks subjects if they have taken part in each of the activities in the past year and if so, how many times. Delinquent subjects were asked about their behavior during the year prior to their placement at the training facility. Self-report measures of delinquency have been

**Measure of intelligence.** The Quick Word Test (QW; Borgatta & Corsini, 1960) is a multiple choice, group-administerable measure of general intellectual ability. For each of 100 words, subjects are asked to select from four choices the word that is closest in meaning to the original word. The score consists of the total number of correct responses. High levels of reliability and concurrent validity are reported in the 1964 manual.

**Measure of socioeconomic status.** Subjects were asked to provide the occupation of both parents. The SES of the family was determined by using the Revised Duncan Sociometric Index (Stevens & Featherman, 1981). Use of this measure was recommended by Mueller & Parcel (1981) in their review of measures of SES.
CHAPTER III

RESULTS

Definition of Experimental Groups

Delayed and mature sociomoral reasoning can be defined in more than one way. This study explored three different ways of defining these categories. Most variables were analyzed for all three different definitions.

The first two definitions involved global scores. First, those who scored below pure stage 3 (global 3(2) or below - SRMS below 275) were categorized as delayed in moral reasoning. Mature moral reasoning was defined as scoring at stage 3 or above (global 3 - SRMS of 275 or above). The second way of categorizing delayed and mature moral reasoners involved dropping all subjects whose global scores reflected a mixture of stage 2 and 3 (global 2(3) and global 3(2)). The delayed group scored at or below global 2 (SRMS of 224 or below) and the mature group scored at or above global stage 3 (SRMS of 275 or above). The third categorization was based not on global scores, but on modal scores. Those with modal stage 2 scores were classified as
delayed and those with modal stage 3 scores were classified as mature.

**Nonexperimental Variables**

Nonexperimental variables were analyzed to determine the equivalency of the alternatively defined delayed and mature groups. Based on one-way ANOVAs, the experimental groups did not differ significantly on age. The variables of race (white/black) and residency (urban/rural) had no detectable influence on the results. Based on t-tests these groups did not differ on SRMS, QW, age, SES, values questionnaires, ORT, or Neutralization Measure. Based on Chi-square analyses they were not represented disproportionately in the delayed or mature moral reasoning groups. Because of these results, data were collapsed across these variables.

The delinquency sample from one facility was significantly older (M=16.8) than the delinquency sample from the second facility (M=16.2), t(85)=4.25, p<.0001. This was to be expected because the sample from the first facility included 17 year olds and the sample from the second facility did not. The mean SES of the delinquents from the first facility was also higher (M=30.85) than the SES of the sample from the second facility (M=23.28), t(58.1)=2.57, p<.05. These samples did not differ significantly on SRMS, ORT, Neutralization Measure, SVQ,
JVQ, or QW. Because of these mostly negative results, data were collapsed across the variable of delinquent facility.

Significant differences on SES were found among the criterion groups (see Table 1). The nondelinquent sample had a higher mean SES than the delinquent sample. The delayed and mature delinquents did not differ except for the analysis using modal scores. For this analysis the mature delinquents had a higher mean SES than the delayed delinquents. Because of the differences, SES was covaried in many of the analyses.

Significant differences were also found for the QW (see Table 2). The nondelinquent sample had a higher mean QW score than the delinquent sample. The mature and delayed delinquents did not differ from each other. Because of the differences, QW scores were also covaried in many of the analyses.

As would be expected, ANOVAs and ANCOVAs (covarying QW and SES) on SRMS for the criterion groups were significant. The mature delinquents and mature nondelinquents were significantly higher than the delayed delinquents. The mature nondelinquents were also significantly higher than the mature delinquents (see Tables 3 and 4).

The records of the delinquent subjects were examined for information on the number of previous incarcerations, convictions for crimes against persons (e.g., assault), and either conviction for a drug related charge (e.g.,
possession or selling of drugs or alcohol) or having received treatment related to the use of drugs. Based on Chi-square analyses none of these factors were found to be related to inclusion in the delayed or mature sociomoral reasoning groups.

Test results were evaluated to determine if the order in which the ORT, SRM, and Neutralization Measure were administered affected the results. One-way ANOVAs were run for the six different orders of administration. These analyses failed to approach a significance level of $p<0.05$. A one-way ANOVA was run on the scores of the SVQ and JVQ for the two orders of administration and this analysis was also not significant.

Based on Chi-square analyses, significant differences were found on the variable of who the subject was living with. Responses were categorized into two groups: living with both natural parents and not living with both natural parents (e.g., single parent, stepparent, public institution). For the delinquent sample the classification was based on who they were living with prior to incarceration. Results were consistent for analyses using all three definitions of delayed moral reasoning. Delayed and mature delinquents did not differ significantly based on Chi-square analyses. Mature delinquents and delayed delinquents differed significantly from mature nondelinquents (see Table 5). Categorized by modal scores,
74% of mature nondelinquents lived with both natural parents versus 26% of mature delinquents and 26% of delayed delinquents.

For inclusion in this study subjects needed to have a reading level of fourth grade or above. The data suggest that a fourth grade reading level was adequate for completing the measures in the study. Based on a Chi-square analysis, subjects with a reading level of between fourth grade and sixth grade were not disproportionately represented in the group of subjects with high F scale scores on the MMPI. If a subject was unable to understand items on the MMPI the F scale score would be elevated. Also, reading level and F scale scores were not correlated. Based on a Chi-square analysis, low scores on the QW (less than 35) were not disproportionately represented in the group of subjects with high F scale scores. However, QW scores did correlate with F scale scores, \( \chi^2(n=73)= -0.27, p<.05 \).

Interrater reliability was calculated for the SRM scoring. Twenty randomly selected protocols were scored by the author and a veteran SRM scorer. Based on SRMS, a correlation of .90 (\( n=20, p<.0001 \)) was obtained. The mean SRMS discrepancy was 11.5. There was exact agreement on modal scores for 75% of the protocols. For global ratings there was 60% exact agreement and 90% agreement within a third of a stage. All of these figures exceed the "minimal
standards" for interrater reliability set forth for SRM scoring (Gibbs and Widaman, 1982).

Table 1

<table>
<thead>
<tr>
<th>MEAN SES Scores for the Criterion Groups and ANOVA Analyses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEANS</strong></td>
</tr>
<tr>
<td><strong>Group</strong></td>
</tr>
<tr>
<td><strong>Criterion</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Delinquents</td>
</tr>
<tr>
<td>Modal</td>
</tr>
<tr>
<td>2/3</td>
</tr>
<tr>
<td>Global</td>
</tr>
<tr>
<td>2/3</td>
</tr>
<tr>
<td>Global</td>
</tr>
<tr>
<td>3(2)/3</td>
</tr>
</tbody>
</table>

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at .05, ** .01, ***.001
Table 2

Mean Quick Word Scores for the Criterion Groups and ANOVA Analyses

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>mature</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>44.60a</td>
<td>39.48a</td>
<td>61.38b</td>
<td>2,104</td>
<td>37.55***</td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
<td>44.57a</td>
<td>37.50a</td>
<td>62.26b</td>
<td>2,62</td>
<td>23.20***</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>44.57a</td>
<td>41.02a</td>
<td>62.26b</td>
<td>2,100</td>
<td>36.05***</td>
</tr>
</tbody>
</table>

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* Significant at .05, ** .01, *** .001

Table 3

Mean SRMS Scores for the Criterion Groups and ANOVA Analyses

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>mature</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>284.00a</td>
<td>233.39b</td>
<td>306.17c</td>
<td>2,119</td>
<td>92.82***</td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
<td>298.93a</td>
<td>216.56b</td>
<td>312.00c</td>
<td>2,71</td>
<td>97.59***</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>298.93a</td>
<td>237.17b</td>
<td>312.00c</td>
<td>2,115</td>
<td>151.52***</td>
</tr>
</tbody>
</table>

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* Significant at .05, ** .01, *** .001
Table 4

ANCOVA Analyses (Covarying IQ and SES Scores) on SRMS Scores by Criterion Groups

<table>
<thead>
<tr>
<th>Criterion</th>
<th>MEANS</th>
<th>Delinquents</th>
<th>Non-Delinquents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>mature</td>
<td>delayed</td>
</tr>
<tr>
<td>Modal 2/3</td>
<td></td>
<td>285.40a</td>
<td>235.38b</td>
</tr>
<tr>
<td>Global 2/3</td>
<td></td>
<td>300.21a</td>
<td>226.44b</td>
</tr>
<tr>
<td>Global 3(2)/3</td>
<td></td>
<td>300.21a</td>
<td>242.65b</td>
</tr>
</tbody>
</table>

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis. * significant at .05, ** .01, *** .001

Table 5

Frequencies and Chi-Square Analyses on Whether Subjects Were Living With Both Natural Parents (Living Arrangements Prior to Incarceration for Delinquent Subjects)

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Delinquents</th>
<th>Non-Delinquents</th>
<th>2 X 2 Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>MD</td>
<td>DD</td>
</tr>
<tr>
<td>Modal 2/3</td>
<td>yes</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>no</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Global 2/3</td>
<td>yes</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>no</td>
<td>20</td>
<td>12</td>
</tr>
</tbody>
</table>

* significant at .05, ** .01, *** .001
Opportunity for Role Taking Measure

ANOVA analyses on the ORT scores were significant (see Table 6). Based on both modal and global scores, mature nondelinquents scored significantly higher than delayed delinquents. Mature delinquents did not differ from mature nondelinquents based on global and modal scores. Global stage 3 delinquents scored significantly higher than global stage 2 delinquents. Mature and delayed delinquents did not differ for the other analyses.

Use of the QW as a covariate attenuated these differences. ANCOVAs on the ORT scores were not significant.

A number of measures correlated significantly with the ORT (see Table 7). Of particular interest to the present study was that despite the ANOVA differences, the ORT and the SRMS did not correlate significantly. This was true for the delinquent sample, the nondelinquent sample, and the total sample. Unlike the SRM, the ORT correlated with six MMPI scales and a measure of pathology (number of MMPI scales with t-scores over 70).

Cronbach's Alpha was calculated on the ORT scores to assess the internal consistency of the measure. An alpha of .80 (N=109) was obtained. This indicates that the CRT has an adequate level of internal consistency.
Table 6

**Mean Scores and ANOVA Analyses on the Opportunities for Role Taking Measure (ORT)**

<table>
<thead>
<tr>
<th>MEANS</th>
<th>Delinquents</th>
<th>Nondelinquents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group</strong></td>
<td>Criterion</td>
<td>mature</td>
</tr>
<tr>
<td><strong>Modal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/3</td>
<td>53.75ab</td>
<td>50.42a</td>
</tr>
<tr>
<td><strong>Global</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/3</td>
<td>53.92a</td>
<td>48.07b</td>
</tr>
<tr>
<td><strong>Global</strong></td>
<td>3(2)/3</td>
<td>53.92ab</td>
</tr>
</tbody>
</table>

*note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.*

* significant at .05, ** .01, *** .001

Table 7

**Significant Correlations With the Opportunities for Role Taking Measure (ORT)**

<table>
<thead>
<tr>
<th>Measure</th>
<th>N</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Word</td>
<td>107</td>
<td>.21*</td>
</tr>
<tr>
<td>Johnson Values Questionnaire</td>
<td>118</td>
<td>-.34***</td>
</tr>
<tr>
<td>Subterranean Values Questionnaire</td>
<td>118</td>
<td>-.27**</td>
</tr>
<tr>
<td>MMPI Scales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F Scale</td>
<td>78</td>
<td>-.32**</td>
</tr>
<tr>
<td>k Scale</td>
<td>78</td>
<td>.26*</td>
</tr>
<tr>
<td>Psychopathic Deviate Scale</td>
<td>78</td>
<td>-.29**</td>
</tr>
<tr>
<td>Psychasthenia Scale</td>
<td>78</td>
<td>-.27*</td>
</tr>
<tr>
<td>Schizophrenia Scale</td>
<td>78</td>
<td>-.32**</td>
</tr>
<tr>
<td>Social Introversion Scale</td>
<td>78</td>
<td>-.27*</td>
</tr>
<tr>
<td>Anxiety Scale</td>
<td>78</td>
<td>-.26*</td>
</tr>
<tr>
<td>Number of MMPI Scales with t-scores over 70</td>
<td>78</td>
<td>-.26*</td>
</tr>
</tbody>
</table>

*note. * significant at .05, ** .01, *** .001
Physical Punishment

Responses to two individual items on the ORT were analyzed. These items related to parents' or guardians' use of physical punishment. Chi-square analyses found significant differences among the groups on the presence or absence of physical punishment in the past ("During grade school, my parents hit me with their fists, a belt, or some other object.") and in the present ("My parents hit me if I do something wrong."); see Tables 8 and 9).

For the past use of physical punishment, delayed delinquents and mature nondelinquents differed significantly based on 2x2 Chi-square analyses. A greater percentage of modal stage 2 delinquents (55%) than modal stage 3 nondelinquents (18%) reported past physical punishment. This difference was also found with global scores, with a greater percentage of delinquents below global stage 3 (53%) than nondelinquents at global stage 3 (20%) reporting past physical punishment. Mature delinquents and mature nondelinquents did not differ based on 2x2 Chi-square analyses. This was also true of the comparison between mature delinquents and delayed delinquents.

A Chi-square analysis found a significant difference between delinquents as a group and nondelinquents as a group, $X^2(1, N=117)=8.89, p<.01$. Forty-six percent of delinquents report past physical punishment versus 18% of
nondelinquents. There was also a significant difference between modal stage 2 subjects and modal stage 3 subjects, $X^2(1, N=117)=6.07, p<.05$. Fifty-one percent of modal stage 2 subjects reported past physical punishment versus 28% of modal stage 3 subjects.

For the current use of physical punishment, only the Chi-square analysis on modal scores was significant. 2x2 Chi-square analyses were significant for comparisons between modal stage 3 delinquents (25% reported present physical punishment) and modal stage 3 nondelinquents (6%), $X^2(1, n=74)=4.94, p<.05$, and modal stage 2 delinquents (39% reported present physical punishment) and modal stage 3 nondelinquents (6%), $X^2(1, n=72)=11.22, p<.0001$. Delayed and mature delinquents did not differ significantly.

Delinquents who reported past physical punishment were compared to delinquents that did not report past physical punishment on a number of variables (see Table 11). Those that reported past physical punishment were more likely to have been convicted of a drug-related crime or to have been in treatment for drug use, to have been previously incarcerated, to not be living with both natural parents, to have rated fistfighting as usually or always acceptable, and to have reported attacking someone with a weapon.

Significant Spearman correlations were also found between the reporting of past physical punishment (rarely, sometimes, often) and many items on the Johnson Values
Questionnaire, Self-Report Delinquency Measure, and various other measures (see Table 11). Past physical punishment was associated with greater acceptance of antisocial behavior, greater use of drugs in the delinquency sample, and more previous incarcerations. There was a negative correlation between past physical punishment and SES, SRMS, and ORT scores.

Table 8

**Frequencies and Chi-Square Analyses on the Presence or Absence of Reported Past Physical Punishment**

<table>
<thead>
<tr>
<th>Frequencies</th>
<th>Nondelin-</th>
<th>Delinquents</th>
<th>2 X 2 Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group</td>
<td>mature</td>
<td>delayed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(MD) (DD) (MN)</td>
<td>MDxDD</td>
</tr>
<tr>
<td>Modal yes</td>
<td>15</td>
<td>21</td>
<td>6</td>
</tr>
<tr>
<td>2/3 no</td>
<td>25</td>
<td>17</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global yes</td>
<td>11</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>2/3 no</td>
<td>14</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global yes</td>
<td>11</td>
<td>28</td>
<td>6</td>
</tr>
<tr>
<td>3(2)/3 no</td>
<td>14</td>
<td>25</td>
<td>24</td>
</tr>
</tbody>
</table>

**note.** * significant at .05, ** .01, *** .001
Table 9

Frequencies and Chi-Square Analyses on the Presence or Absence of Reported Current Physical Punishment

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Delinquents</th>
<th>Nondelinquents</th>
<th>2 X 2 Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mature</td>
<td>delayed</td>
<td>mature</td>
</tr>
<tr>
<td>Group</td>
<td>#</td>
<td>(MD)</td>
<td>(DD)</td>
</tr>
<tr>
<td>Modal yes</td>
<td>10</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>Modal no</td>
<td>30</td>
<td>23</td>
<td>32</td>
</tr>
<tr>
<td>Global yes</td>
<td>7</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Global no</td>
<td>18</td>
<td>8</td>
<td>28</td>
</tr>
<tr>
<td>Global 3(2)/3 yes</td>
<td>18</td>
<td>18</td>
<td>5</td>
</tr>
</tbody>
</table>

* significant at .05
Table 10

**Significant Spearman Correlations With the Variable of Past Physical Punishment**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Johnson Values Questionnaire</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Score</td>
<td>117</td>
<td>.29**</td>
</tr>
<tr>
<td>Acceptability of Fistfighting</td>
<td>117</td>
<td>.31***</td>
</tr>
<tr>
<td>Acceptability of Stealing</td>
<td>117</td>
<td>.36***</td>
</tr>
<tr>
<td>Acceptability of Hurting Someone</td>
<td>117</td>
<td>.25**</td>
</tr>
<tr>
<td>Acceptability of Breaking the Law If You Can Get Away With It</td>
<td>117</td>
<td>.26**</td>
</tr>
<tr>
<td><strong>Self-Report Delinquency Measure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theft of Over $50</td>
<td>117</td>
<td>.35***</td>
</tr>
<tr>
<td>Auto Theft</td>
<td>117</td>
<td>.25**</td>
</tr>
<tr>
<td>Vandalism of Over $50</td>
<td>117</td>
<td>.28**</td>
</tr>
<tr>
<td>Assault With a Weapon</td>
<td>117</td>
<td>.39***</td>
</tr>
<tr>
<td>Committed a Crime While On Drugs</td>
<td>117</td>
<td>.22*</td>
</tr>
<tr>
<td>Stole Money for Drugs</td>
<td>117</td>
<td>.26**</td>
</tr>
<tr>
<td>Sold Drugs</td>
<td>117</td>
<td>.30**</td>
</tr>
<tr>
<td>SES</td>
<td>100</td>
<td>-.25*</td>
</tr>
<tr>
<td>Drug Conviction or Treatment</td>
<td>78</td>
<td>.28*</td>
</tr>
<tr>
<td>Previous Incarcerations</td>
<td>117</td>
<td>.26**</td>
</tr>
<tr>
<td>SRMS</td>
<td>117</td>
<td>-.18*</td>
</tr>
<tr>
<td>ORT</td>
<td>117</td>
<td>-.35***</td>
</tr>
</tbody>
</table>

* significant at .05, ** .01, *** .001
Table 11

Frequencies and Chi-Square Analyses on Numerous Variables Comparing Delinquents Who Reported Past Physical Punishment With Those Who Did Not

<table>
<thead>
<tr>
<th>Variable</th>
<th>Past Physical Punishment</th>
<th>df</th>
<th>X^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug Conviction or Treatment</td>
<td>7</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>No Drug Conviction or Treatment</td>
<td>35</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>Previous Incarceration</td>
<td>16</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>No Previous Incarceration</td>
<td>56</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>Living with Both Natural Parents</td>
<td>38</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Not Living with Both Natural Parents</td>
<td>34</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td>Rated Fistfighting as Sometimes, Seldom, or Never Acceptable</td>
<td>67</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Rated Fistfighting as Usually or Always Acceptable</td>
<td>7</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>No Self-Reported Assault With a Weapon</td>
<td>59</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Self-Reported Assault With a Weapon</td>
<td>15</td>
<td>23</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. * significant at .05, ** .01, ***.001
Values Measures

ANOVA on the total score for the Johnson Values Questionnaire were significant (see Table 12). Based on modal scores, the three criterion groups all differed significantly from each other, with the delayed delinquents endorsing antisocial behavior the most and the mature nondelinquents endorsing it the least. Using global scores, delayed delinquents (both stage 2 and those below stage 3) endorsed antisocial behavior to a significantly greater extent than did mature nondelinquents with stage 3 delinquents scoring inbetween and not differing significantly from delayed delinquents and mature nondelinquents.

Covarying QW scores eliminated one of the significant differences. However, the ANCOVA based on the modal scores was significant (see Table 13). All groups differed significantly from each other. Also, delinquents below global stage 3 endorsed antisocial behavior to a significantly greater extent than both global stage 3 delinquents and global stage 3 nondelinquents. Based on global scores, the mature delinquents and nondelinquents did not differ from each other.

Interesting differences were found among the six individual items that make up this scale. Responses to items asking how often it is acceptable to fistfight, hurt
someone, get around the law if you can get away with it, destroy school property, and take something of small value from a rich person were found to differ significantly among the groups (see Tables 14-18). Modal stage 2 delinquents found the following behaviors to be more acceptable than modal stage 3 delinquents and nondelinquents: destroying school property, physically hurting someone, and getting around the law if you can get away with it. Both delayed and mature delinquents found the following behaviors to be more acceptable than mature nondelinquents: taking something of small value from a rich person and fistfighting.

However, many of these differences were not found when QW scores were covaried. ANCOVAs were significant for the questions asking how often it is acceptable to fistfight and how often it is acceptable to hurt someone (see Tables 19 and 20). The results were similar to those obtained with the ANOVAs.

The total score on the Johnson Values Questionnaire correlated significantly with SRMS, \( r(N=127) = -0.27, p < 0.001 \), and QW, \( r(N=112) = -0.39, p < 0.0001 \). As with the other values questionnaire, the Johnson Values Questionnaire correlated with the MORT, \( r(N=118) = -0.34, p < 0.0001 \). The two values measures also correlated with each other \( r(N=127) = 0.50, p < 0.0001 \).
ANOVAs and ANCOVAs (covarying QW scores) were run on the scores from the Subterranean Values Questionnaire. These analyses were not significant. The only meaningful correlation between this measure and another was with the ORT, \( r(N=118) = .27, p < .01 \). Despite the nonsignificant ANOVAs, a 3x2 Chi-square analysis comparing global stage 3 delinquents, global stage 3 nondelinquents, and delinquents below global stage 3 on SVQ scores above or below the median was significant, \( \chi^2(2, N=118) = 8.92, p < .01 \). 2x2 Chi-square analyses indicated that a greater proportion of delinquents below global stage 3 (58%) scored above the median than did global stage 3 delinquents (30%), \( \chi^2(1, n=87) = 6.13, p < .05 \), and global stage 3 nondelinquents (32%), \( \chi^2(1, n=91) = 5.56, p < .05 \). Nondelinquents below global stage 3 were not included in this analysis because of the limited number of subjects (9), but 78% of them scored above the median. Delinquents as a group did not differ from nondelinquents as a group based on a Chi-square analysis. However, a greater percentage of subjects below global stage 3 (61%) scored above the median than did global stage 3 subjects (36%), \( \chi^2(1, N=127) = 11.25, p < .001 \).
Table 12

**Mean Scores and ANOVA Analyses on the Total Scores for the Johnson Values Questionnaire**

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>mature</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delinquents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>8.20a</td>
<td>11.93b</td>
<td>5.88c</td>
<td>2,119</td>
<td>15.10***</td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
<td>8.50ab</td>
<td>11.00a</td>
<td>6.19b</td>
<td>2,71</td>
<td>4.54*</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>8.50ab</td>
<td>10.84a</td>
<td>6.19b</td>
<td>2,115</td>
<td>8.28***</td>
</tr>
</tbody>
</table>

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at .05, ** .01, *** .001

Table 13

**ANCOVA Analyses (Covarying QW Scores) on the Total Scores for the Johnson Values Questionnaire**

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>mature</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delinquents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>8.42a</td>
<td>11.60b</td>
<td>5.94c</td>
<td>3,84</td>
<td>5.60**</td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
<td>7.31a</td>
<td>10.33a</td>
<td>6.26a</td>
<td>3,52</td>
<td>NS</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>7.31a</td>
<td>11.43b</td>
<td>6.26a</td>
<td>3,81</td>
<td>4.10*</td>
</tr>
</tbody>
</table>

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at .05, ** .01, *** .001
Table 14

**Means and ANOVA Analyses on the Acceptability of Fistfighting Question on the Johnson Values Questionnaire**

<table>
<thead>
<tr>
<th></th>
<th>Delinquents</th>
<th>Nondelinquents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Criterion</strong></td>
<td>mature</td>
<td>delayed</td>
</tr>
<tr>
<td><strong>Modal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/3</td>
<td>1.58a</td>
<td>1.86a</td>
</tr>
<tr>
<td><strong>Global</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/3</td>
<td>1.32a</td>
<td>1.68a</td>
</tr>
<tr>
<td>3(2)/3</td>
<td>1.32a</td>
<td>1.91a</td>
</tr>
</tbody>
</table>

*note. The larger the score, the more often fistfighting was judged to be acceptable.*

*note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.*

*significant at the .05 level: ** .01: *** .001
Table 15

Means and ANOVA Analyses on the JVQ Question Concerning How Often it is Acceptable to Physically Hurt Someone

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>mature</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>1.41a</td>
<td>2.04b</td>
<td>1.02a</td>
<td>2,119</td>
<td>8.05***</td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
<td>1.42ab</td>
<td>2.00a</td>
<td>1.09b</td>
<td>2,71</td>
<td>3.31*</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>1.42ab</td>
<td>1.88a</td>
<td>1.09b</td>
<td>2,115</td>
<td>4.70**</td>
</tr>
</tbody>
</table>

Note. The larger the score, the more often physically hurting someone was judged to be acceptable.

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at the .05 level: ** .01: *** .001
Table 16

Means and ANOVA Analyses on the JVQ Question Concerning How Often it is Acceptable to "Get Around the Law If You Can Get Away With It."

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>mature</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delinquents</td>
<td>2/3</td>
<td>1.53a</td>
<td>2.20b</td>
<td>1.28a</td>
<td>2,119</td>
<td>4.95**</td>
</tr>
<tr>
<td>Nondelinquents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>1.60a</td>
<td>1.75a</td>
<td>1.32a</td>
<td>2,71</td>
<td>NS</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>1.60a</td>
<td>2.00a</td>
<td>1.32a</td>
<td>2,115</td>
<td>NS</td>
</tr>
</tbody>
</table>

note. The larger the score, the more often getting around the law was judged to be acceptable.

note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at the .05 level: ** .01: *** .001
Table 17

**Means and ANOVA Analyses on the JVQ Question Concerning How Often it is Acceptable to Destroy School Property**

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>Delinquents</th>
<th>Nondelinquents</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>.69a</td>
<td>1.72b</td>
<td>.54a</td>
<td>2,118</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
<td>.78ab</td>
<td>1.43a</td>
<td>.51b</td>
<td>2,71</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>.78a</td>
<td>1.41b</td>
<td>.51a</td>
<td>2,114</td>
</tr>
</tbody>
</table>

**Note.** The larger the score, the more often destroying school property was judged to be acceptable.

**Note.** The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at the .05 level: ** .01: *** .001
Table 18

Means and ANOVA Analyses on the JVQ Question Concerning How Often it is Acceptable to "Take Something of Small Value From a Rich Person."

<table>
<thead>
<tr>
<th></th>
<th>Delinquents</th>
<th></th>
<th>Nondelinquents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion</td>
<td>mature</td>
<td>delayed</td>
<td>mature</td>
<td>delayed</td>
</tr>
<tr>
<td>Modal</td>
<td>1.06a</td>
<td>1.06a</td>
<td>.31b</td>
<td>2,119</td>
</tr>
<tr>
<td>Global</td>
<td>.96ab</td>
<td>1.25a</td>
<td>.32b</td>
<td>2,71</td>
</tr>
<tr>
<td>Global</td>
<td>.96a</td>
<td>1.11a</td>
<td>.32b</td>
<td>2,115</td>
</tr>
</tbody>
</table>

Note. The larger the score, the more often taking something of small value was judged to be acceptable.

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at the .05 level; ** .01; *** .001
Table 19

**ANCOVA Analyses (Covarying OW) on the JVO Question Concerning How Often it is Acceptable to Fistfight**

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>mature</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>1.50a</td>
<td>2.00a</td>
<td>.36b</td>
<td>4,84</td>
<td>10.04***</td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
<td>1.21a</td>
<td>1.88a</td>
<td>.46b</td>
<td>4,52</td>
<td>3.31*</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>1.21a</td>
<td>2.00b</td>
<td>.46c</td>
<td>4,81</td>
<td>9.38***</td>
</tr>
</tbody>
</table>

Note. The larger the score, the more often fistfighting was judged to be acceptable.

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at the .05 level: ** .01: *** .001
Table 20

Means and ANCOVA Analyses (Covarying QW) on the JVQ Question Concerning How Often it is Acceptable to Physically Hurt Someone

<table>
<thead>
<tr>
<th>MEANS</th>
<th>Delinquents</th>
<th>Nondelinquents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Criterion</td>
<td>mature</td>
</tr>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>1.45a</td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
<td>1.26ab</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>1.26a</td>
</tr>
</tbody>
</table>

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at the .05 level: ** .01: *** .001
Neutralization Measure

Significant differences on ANOVAs and ANCOVAs (covarying QW and SES) were not found for the overall neutralization score. However, a significant difference was found when the results were analyzed for the type of neutralization. ANCOVAs (covarying QW and SES) on Denial of Responsibility were significant (see Tables 21). For the ANCOVAs, mature nondelinquents had significantly higher neutralization scores (lowered their ratings of how wrong an act was) than the mature delinquents on analyses using both global and modal scores. The delayed delinquents scored between the mature delinquents and the nondelinquents, differing significantly from the mature nondelinquents in only the analysis based on modal scores and failing to differ significantly from the mature delinquents.

When the results were analyzed by the question asked, one significant difference was found. This was on the question related to how morally right or wrong the behavior was (see Table 22). Once again, the mature nondelinquents scored significantly higher than the mature delinquents on the analyses using both global scores and modal scores. The delayed delinquents again scored inbetween. Modal stage 2 delinquents did not differ from modal stage 3 delinquents, but scored significantly lower than modal stage 3 nondelinquents. The same results were found when
delinquents below global stage 3 were compared with global stage 3 delinquents and nondelinquents. However, global stage 2 delinquents did not differ significantly from global stage 3 nondelinquents. They were significantly higher than global stage 3 delinquents. These differences were not found when QW and SES were covaried in the analyses.

The delinquent sample, both delayed and mature, showed little difference in how they responded to the different types of neutralization. This was not true for the mature nondelinquents. The mature nondelinquents decreased their ratings of how wrong an act was much more in response to denial of responsibility than to appeal to a higher loyalty (see Table 23).

Differences were found among the criterion groups on their original ratings of the behaviors in the two vignette (see Tables 24-27). Because the rating scale could not be considered to produce interval data, Chi-square analyses were used. For the question of how morally right or wrong Jim was for setting a fire responses were categorized as "very wrong" or less than very wrong (from "somewhat wrong" to "very right"). Based on modal scores and global scores a greater percentage of delinquent subjects rated the fire setting as "very wrong" morally and "definitely wrong" legally than did mature nondelinquents. Twenty-six percent of modal stage 3 nondelinquents rated the fire-setting behavior as "definitely wrong" legally, compared with 55% of
modal stage 3 delinquents and 66% of modal stage 2 delinquents. Forty-three percent of modal stage 3 nondelinquents rated Jim's behavior as "very wrong" morally compared with 67% of modal stage 3 delinquents and 76% of modal stage 2 delinquents. The only exception was that global stage 2 delinquents did not differ significantly from global stage 3 nondelinquents on how often they rated the behavior as morally very wrong. Delayed and mature delinquents did not differ from each other. Based on both global and modal scores a greater proportion of delinquents (21% of modal stage 3 delinquents and 41% of modal stage 2 delinquents) than mature nondelinquents (0% of modal stage 3 nondelinquents) believed that Jim should be jailed for setting the fire. Mature delinquents favored less severe punishments. Delayed and mature delinquents did not differ from each other.

For the second vignette, there was a significant difference on only one of the ratings. In this vignette a principal kicks a child out of school for breaking a window. A greater percentage of mature nondelinquents (91% of modal stage 3 nondelinquents) than delinquents (55% of modal stage 3 delinquents and 47% of modal stage 2 delinquents) viewed the behavior of the principal as morally "very wrong".
Table 21

Means and ANCOVA Analyses (Covarying IQ and SES) on the Neutralization Scores for the Neutralization Technique of Denial of Responsibility

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>mature</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>1.70a</td>
<td>1.88a</td>
<td>2.57b</td>
<td>4.83</td>
<td>3.97*</td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
<td>1.52a</td>
<td>1.62ab</td>
<td>2.46b</td>
<td>4.51</td>
<td>3.36*</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>1.52a</td>
<td>1.91ab</td>
<td>2.46b</td>
<td>4.80</td>
<td>3.51*</td>
</tr>
</tbody>
</table>

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at the .05 level:  ** .01:  *** .001
Table 22

Means and ANOVA Analyses on Neutralization Scores for the Questions Concerning How Morally Right or Wrong the Actions Were

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>Delinquents</th>
<th>Nondelinquents</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal</td>
<td>2/3</td>
<td>1.83a</td>
<td>2.00a</td>
<td>2.80b</td>
<td>2,115</td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
<td>1.70a</td>
<td>2.53b</td>
<td>2.70b</td>
<td>2,69</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
<td>1.70a</td>
<td>2.01a</td>
<td>2.70b</td>
<td>2,111</td>
</tr>
</tbody>
</table>

Note. The means for each analysis subscripted with the same letter do not differ at the .05 level based on a Newman-Keuls analysis.

* significant at the .05 level: ** .01: *** .001

Table 23

Number of Mature Nondelinquents with Neutralization Scores of 3 or 4 (High Scores) By Neutralization Type and One-Way Chi-Square Results

<table>
<thead>
<tr>
<th>Type of Neutralization</th>
<th>Appeal to a Higher Loyalty</th>
<th>Denial of Responsibility</th>
<th>Denial of Injury</th>
<th>Condemnation of the Condemner</th>
<th>df</th>
<th>X^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>10.00*</td>
</tr>
<tr>
<td>Global</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>8.86*</td>
</tr>
</tbody>
</table>

Note. * significant at .05
Table 24

Frequencies and Chi-Square Analyses on Ratings of Whether the Principal's Behavior on the Neutralization Measure was Morally "Very Wrong"

<table>
<thead>
<tr>
<th>Criter-</th>
<th>Delinquents</th>
<th>Nondelin­</th>
<th>2 X 2 Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>ion</td>
<td>mature</td>
<td>delayed</td>
<td>mature</td>
</tr>
<tr>
<td>Group</td>
<td>#</td>
<td>(MD)</td>
<td>(DD)</td>
</tr>
<tr>
<td>Modal</td>
<td>yes</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>2/3</td>
<td>no</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>Global</td>
<td>yes</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>2/3</td>
<td>no</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Global</td>
<td>yes</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>3(2)/3</td>
<td>no</td>
<td>11</td>
<td>30</td>
</tr>
</tbody>
</table>

Note. # yes = rated very wrong; no = rated somewhat wrong, neither right nor wrong, somewhat right, or very right. 
* significant at .05, ** .01, *** .001
Table 25

Frequencies and Chi-Square Analyses on Responses to Whether or Not Jim Should Be Jailed for Setting the Fire (Neutralization Measure)

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Delinquents mature</th>
<th>Delinquents delayed</th>
<th>2 x 2 Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>(MD)</td>
<td>(DD)</td>
<td>(MN)</td>
</tr>
<tr>
<td>Modal yes</td>
<td>9</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>2/3 no</td>
<td>33</td>
<td>24</td>
<td>35</td>
</tr>
<tr>
<td>Global yes</td>
<td>8</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>2/3 no</td>
<td>18</td>
<td>11</td>
<td>31</td>
</tr>
<tr>
<td>Global yes</td>
<td>8</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>3(2)/3 no</td>
<td>18</td>
<td>38</td>
<td>31</td>
</tr>
</tbody>
</table>

Note. # yes = should be jailed or should be jailed and pay a fine; no = should be fined, should pay for damages, or nothing

* significant at .05, ** .01, *** .001
-- expected cell frequencies too small for Chi-Square analysis
Table 26

Frequencies and Chi-Square Analyses on Ratings of Whether or Not Jim's Behavior on the Neutralization Measure was Legally "Definitely Wrong"

<table>
<thead>
<tr>
<th></th>
<th>Nondelinquents</th>
<th>Delinquents</th>
<th>2 X 2 Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mature</td>
<td>delayed</td>
<td>mature</td>
</tr>
<tr>
<td>Group</td>
<td># (MD) (DD) (MN) MDxDD MDxMN DDxMN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modal</td>
<td>yes</td>
<td>23 (27)</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>2/3 no</td>
<td>19 (14)</td>
<td>26 NS 6.63**</td>
</tr>
<tr>
<td>Global</td>
<td>yes</td>
<td>16 (10)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>2/3 no</td>
<td>11 (4)</td>
<td>25 NS 9.76**</td>
</tr>
<tr>
<td>Global</td>
<td>yes</td>
<td>16 (36)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3(2)/3 no</td>
<td>11 (20)</td>
<td>25 NS 9.76**</td>
</tr>
</tbody>
</table>

Note. # yes = definitely wrong; no = probably wrong, probably not wrong, and definitely not wrong
* significant at .05, ** .01, ***.001

Table 27

Frequencies and Chi-Square Analyses on Ratings of Whether or Not Jim's Behavior on the Neutralization Measure was Morally "Very Wrong"

<table>
<thead>
<tr>
<th></th>
<th>Nondelinquents</th>
<th>Delinquents</th>
<th>2 X 2 Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mature</td>
<td>delayed</td>
<td>mature</td>
</tr>
<tr>
<td>Group</td>
<td># (MD) (DD) (MN) MDxDD MDxMN DDxMN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modal</td>
<td>yes</td>
<td>28 (31)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>2/3 no</td>
<td>14 (10)</td>
<td>20 NS 4.39*</td>
</tr>
<tr>
<td>Global</td>
<td>yes</td>
<td>18 (9)</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>2/3 no</td>
<td>9 (5)</td>
<td>19 NS NS NS</td>
</tr>
<tr>
<td>Global</td>
<td>yes</td>
<td>18 (41)</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>3(2)/3 no</td>
<td>9 (15)</td>
<td>19 NS 4.52*</td>
</tr>
</tbody>
</table>

Note. # yes = rated very wrong; no = rated somewhat wrong, neither right nor wrong, somewhat right, or very right
* significant at .05, ** .01, ** .001
Self-Report Delinquency Measure

The results of the Self-Report Delinquency Measure are reported in Table 28. Chi-square analyses on reported presence or absence of a behavior found significant differences on all items on the SRDM. 2x2 Chi-square analyses comparing the mature delinquents and mature nondelinquents and the delayed delinquents and mature nondelinquents were significant for all SRDM items. Chi-square analyses comparing mature and delayed delinquents were not significant. Mature and delayed delinquents did not differ on the reported number of times the delinquent behaviors were engaged in. These results show that the delinquent sample reported significantly more delinquent activities than the nondelinquent sample.

Four nondelinquents responded yes when asked if they had ever been convicted of a crime. None of the four had been incarcerated for a felony, the criterion used to define delinquency in this study. These four subjects had a mean SRMS of 273, compared with 312 for the entire nondelinquent sample. Two (50%) of the nondelinquents who admitted to being convicted of a crime were below global stage 3, whereas only six (17%) of those who said they had not been convicted of a crime were below global stage 3.
Table 28

Frequencies and Chi-Square Analyses on Items From the Self-Report Delinquency Measure (Criterion Groups Based on Modal Scores)

<table>
<thead>
<tr>
<th>Item</th>
<th>Non-delinquents</th>
<th>2 x 2 Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(MD)</td>
<td>(DD)</td>
</tr>
<tr>
<td>Small Theft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>35</td>
<td>28</td>
</tr>
<tr>
<td>no</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Medium Theft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>35</td>
<td>34</td>
</tr>
<tr>
<td>no</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Large Theft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>32</td>
<td>33</td>
</tr>
<tr>
<td>no</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Auto Theft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>no</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Medium Vandalism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>no</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>Large Vandalism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>no</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>Fighting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
<td>no</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Fighting with a Weapon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>no</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>Drug Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>39</td>
<td>36</td>
</tr>
<tr>
<td>no</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Broken the Law While Drunk or High</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>27</td>
<td>30</td>
</tr>
<tr>
<td>no</td>
<td>16</td>
<td>14</td>
</tr>
</tbody>
</table>
Table 28 (continued)

<table>
<thead>
<tr>
<th></th>
<th>yes</th>
<th>no</th>
<th>NS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Broken the Law to Get Money for Drugs</td>
<td>20</td>
<td>23</td>
<td>20</td>
<td>24</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19.52**</td>
<td>21.30***</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>yes</th>
<th>no</th>
<th>NS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sold Drugs</td>
<td>23</td>
<td>20</td>
<td>29</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18.08**</td>
<td>24.30***</td>
<td></td>
</tr>
</tbody>
</table>

Note. * significant at .05, ** .01, ***.001

MMPI Analyses

Only the delinquent sample completed the MMPI and therefore all analyses compared delayed and mature delinquents. Four significant differences were found based on ANOVA analyses (see Tables 29-32). Global stage 3 delinquents scored higher than delinquents below global stage 3 on the Masculinity/Femininity scale and the Repression scale. Delinquents below global stage 3 scored higher than global stage 3 delinquents on the MacAndrews Alcoholism scale and global stage 2 delinquents scored higher than global stage 3 delinquents on the Anxiety scale.

The results of ANCOVAs (covarying QW and SES) analyses generally paralleled those of the ANOVA analyses (see Tables 33-37). No significant differences were found in scaled scores on the three validity scales. Significant differences were found in scaled scores on two of the ten clinical scales and significant differences were found in raw scores on three of the four research scales that were examined.
On both the Depression scale and the Masculinity/Femininity scale global stage 3 delinquents scored significantly higher than delinquents below global stage 3. On the Depression scale, delinquents at global stage 3 had a mean t-score of 60.1, compared with 55.2 for delinquents below global stage 3. On the Masculinity/Femininity scale, delinquents at global stage 3 had a mean t-score of 62.8 compared with 57.6 for the delinquents below global stage 3. On the Anxiety scale global stage 2 delinquents scored significantly higher than global stage 3 delinquents. On the MacAndrew Alcoholism scale delinquents below global stage 3 scored significantly higher than global stage 3 delinquents. On the Repression scale global stage 3 delinquents scored significantly higher than both delinquents below global stage 3 and global stage 2 delinquents.

A t-score of 70 is the generally accepted cut-off score for abnormality. Scores of 70 or above are considered to be outside the normal range. Thirty-three modal stage 3 delinquents (73%) had at least one scaled score (t-score) on a clinical scale at or above 70 compared with 33 (80%) modal stage 2 delinquents. Based on global scores, 23 stage 3 delinquent (82%), 44 delinquents below stage 3 (76%), and 13 stage 2 delinquents (87%) had scaled scores at or above 70.
The MMPI profiles of subjects with a scaled score at or above 70 were examined for the presence or absence of one of the "internalizing" scales (Hs, D, Hy, Mf, Pt, Si) among their two highest scales (see Table 39). Based on both modal and global scores a significantly greater proportion of mature delinquents had an "internalizing" scale among their two highest scales. Eighty-three percent of global stage 3 delinquents with a scaled score of 70 or above had a high internalizing scale compared with 41% of delinquents below global stage 3. Based on modal scores, 70% of stage 3 delinquents with a scaled score at or above 70 had a high internalizing scale compared with 41% of stage 2 delinquents.

Table 38 contains the mean scaled scores for the criterion groups on the three validity scales and 10 clinical scales. Global stage 3 delinquents had mean scaled scores at least one standard deviation above the mean of the normative sample on seven of the clinical scales compared with six for delinquents below global stage 3 and seven for delinquents at global stage 2. Based on modal scores, stage 3 delinquents had 5 mean scaled scores at least one standard deviation above the mean and stage 2 delinquents had six. F scale scores for all groups were close to two standard deviations above the mean.
Table 29

Means and ANOVA Analyses for Scaled Scores of Delinquent Subjects on the MMPI Scale of Masculinity/Femininity

<table>
<thead>
<tr>
<th>MEANS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delinquents</td>
</tr>
<tr>
<td>Group</td>
<td>Criterion</td>
</tr>
<tr>
<td>Modal</td>
<td>2/3</td>
</tr>
<tr>
<td></td>
<td>Global</td>
</tr>
<tr>
<td></td>
<td>3(2)/3</td>
</tr>
</tbody>
</table>

note. * significant at .05

Table 30

Means and ANOVA Analyses for Delinquent Subjects' Raw Scores on the MMPI Repression Scale

<table>
<thead>
<tr>
<th>MEANS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delinquents</td>
</tr>
<tr>
<td>Group</td>
<td>Criterion</td>
</tr>
<tr>
<td>Modal</td>
<td>2/3</td>
</tr>
<tr>
<td></td>
<td>Global</td>
</tr>
<tr>
<td></td>
<td>3(2)/3</td>
</tr>
</tbody>
</table>

note. * significant at .05 level
Table 31

Means and ANOVA Analyses for Delinquent Subjects' Raw Scores on the MMPI MacAndrews Scale

<table>
<thead>
<tr>
<th>MEANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
</tr>
<tr>
<td>Criterion</td>
</tr>
<tr>
<td>Modal 2/3</td>
</tr>
<tr>
<td>Global 2/3</td>
</tr>
<tr>
<td>Global 3(2)/3</td>
</tr>
</tbody>
</table>

note. * significant at .05 level

Table 32

Means and ANOVA Analyses for Delinquent Subjects' Raw Scores on the MMPI Anxiety Scale

<table>
<thead>
<tr>
<th>MEANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
</tr>
<tr>
<td>Criterion</td>
</tr>
<tr>
<td>Modal 2/3</td>
</tr>
<tr>
<td>Global 2/3</td>
</tr>
<tr>
<td>Global 3(2)/3</td>
</tr>
</tbody>
</table>

note. * significant at .05 level
Table 33

Means and ANCOVA Analyses (Covarying OW and SES) for Delinquent Subjects' Scaled Scores on the MMPI Depression Scale

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delinquents</td>
<td>Modal</td>
<td>2/3</td>
<td>55.46</td>
<td>55.32</td>
<td>3,52</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Global</td>
<td>2/3</td>
<td>60.47</td>
<td>59.37</td>
<td>3,23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Global</td>
<td>3(2)/3</td>
<td>60.47</td>
<td>53.54</td>
<td>3,52</td>
</tr>
</tbody>
</table>

Note. * significant at .05 level

Table 34

Means and ANCOVA Analyses (Covarying OW and SES) for Delinquent Subjects' Scaled Scores on the MMPI Masculinity/Femininity Scale

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delinquents</td>
<td>Modal</td>
<td>2/3</td>
<td>60.03</td>
<td>56.28</td>
<td>3,52</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Global</td>
<td>2/3</td>
<td>62.42</td>
<td>63.37</td>
<td>3,23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Global</td>
<td>3(2)/3</td>
<td>62.42</td>
<td>56.13</td>
<td>3,52</td>
</tr>
</tbody>
</table>

Note. * significant at .05 level
**Table 35**

*Means and ANCOVA Analyses (Covarying QW and SES) for Delinquent Subjects' Raw Scores on the MMPI Anxiety Scale*

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delinquents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modal 2/3</td>
<td></td>
<td>19.33</td>
<td>21.92</td>
<td>3.52</td>
<td>NS</td>
</tr>
<tr>
<td>Global 2/3</td>
<td></td>
<td>19.32</td>
<td>28.12</td>
<td>3.23</td>
<td>6.55*</td>
</tr>
<tr>
<td>Global 3(2)/3</td>
<td></td>
<td>19.32</td>
<td>21.16</td>
<td>3.52</td>
<td>NS</td>
</tr>
</tbody>
</table>

*note. * significant at .05 level

**Table 36**

*Means and ANCOVA Analyses (Covarying QW and SES) for Delinquent Subjects' Raw Scores on the MMPI Repression Scale*

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion</th>
<th>mature</th>
<th>delayed</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delinquents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modal 2/3</td>
<td></td>
<td>14.76</td>
<td>12.80</td>
<td>3.52</td>
<td>NS</td>
</tr>
<tr>
<td>Global 2/3</td>
<td></td>
<td>15.89</td>
<td>11.62</td>
<td>3.23</td>
<td>6.26*</td>
</tr>
<tr>
<td>Global 3(2)/3</td>
<td></td>
<td>15.89</td>
<td>12.81</td>
<td>3.52</td>
<td>7.64**</td>
</tr>
</tbody>
</table>

*note. * significant at .05, ** significant at .01
Table 37

**Means and ANCOVA Analyses (Covarying IQ and SES) for Delinquent Subjects' Raw Scores on the MMPI MacAndrews Alcoholism Scale**

<table>
<thead>
<tr>
<th>MEANS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Delinquents</td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>Criterion</td>
</tr>
<tr>
<td>Modal</td>
<td>2/3</td>
</tr>
<tr>
<td>Global</td>
<td>2/3</td>
</tr>
<tr>
<td>Global</td>
<td>3(2)/3</td>
</tr>
</tbody>
</table>

*note.* * significant at .05, ** significant at .01

Table 38

**Mean Scaled Scores for Delinquent Subjects on MMPI Scales**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Global 2 (n=15)</th>
<th>Below Global 3 (n=59)</th>
<th>Global 3 (n=28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>49.8</td>
<td>49.1</td>
<td>48.6</td>
</tr>
<tr>
<td>F</td>
<td>75.4</td>
<td>68.8</td>
<td>71.2</td>
</tr>
<tr>
<td>K</td>
<td>43.0</td>
<td>45.0</td>
<td>46.3</td>
</tr>
<tr>
<td>Hs</td>
<td>65.6</td>
<td>60.0</td>
<td>62.7</td>
</tr>
<tr>
<td>D</td>
<td>59.0</td>
<td>55.2</td>
<td>60.1</td>
</tr>
<tr>
<td>Hy</td>
<td>55.7</td>
<td>55.6</td>
<td>57.1</td>
</tr>
<tr>
<td>Pd</td>
<td>63.4</td>
<td>63.5</td>
<td>64.0</td>
</tr>
<tr>
<td>Mf</td>
<td>62.3</td>
<td>57.6</td>
<td>62.8</td>
</tr>
<tr>
<td>Pa</td>
<td>62.4</td>
<td>60.4</td>
<td>57.4</td>
</tr>
<tr>
<td>Pt</td>
<td>69.8</td>
<td>62.2</td>
<td>63.7</td>
</tr>
<tr>
<td>Sc</td>
<td>70.6</td>
<td>64.2</td>
<td>65.0</td>
</tr>
<tr>
<td>Ma</td>
<td>69.7</td>
<td>67.2</td>
<td>65.5</td>
</tr>
<tr>
<td>Si</td>
<td>57.2</td>
<td>49.9</td>
<td>52.8</td>
</tr>
</tbody>
</table>
### Table 39

**Frequencies and Chi-Square Analyses on the Presence or Absence of an "Internalizing" Scale Among a Subject's Two Highest Scaled Scores (for Delinquent Subjects With at Least One MMPI Scaled Score Over 70)**

<table>
<thead>
<tr>
<th>Criterion Groups</th>
<th>Delayed</th>
<th>Mature</th>
<th>df</th>
<th>$X^2$</th>
</tr>
</thead>
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<td></td>
<td>Yes</td>
<td>No</td>
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<tr>
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<td>20</td>
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<td>10</td>
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<tr>
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*note.* * significant at .05, ** .01, *** .001
CHAPTER IV

DISCUSSION

Values

Significant differences were found among mean scores on the Johnson Values Questionnaire. Mature nondelinquents rated antisocial behaviors as less acceptable than both delinquent groups and the mature delinquents rated the antisocial behaviors as less acceptable than did the delayed delinquents. In addition, Johnson Values Questionnaire scores also correlated with SRMS. This was not the case with scores from the Subterranean Values Questionnaire. It appeared that both level of moral reasoning and delinquency status were related to the acceptance of antisocial behavior.

An interesting pattern was obtained when responses to individual items were analyzed. When QW scores were not covaried modal stage 2 delinquents rated getting around the law, destroying school property, and hurting someone as more acceptable than modal stage 3 delinquents and nondelinquents. Getting around the law if you can get away with it and hurting someone are very much related to stage 2
moral reasoning. At stage 2 an individual focuses on benefits and liabilities for him/herself. Concern with hurting others and their emotional reactions (noninstrumental concerns) do not fully develop until stage 3. For fistfighting and taking something of small value the level of moral reasoning did not appear to be a factor, but delinquents found these behaviors to be more acceptable than nondelinquents. These results suggest that the acceptance of certain antisocial behaviors are related to level of moral reasoning while others are not. Based on the assumption that beliefs affect behavior, it would seem that delayed and mature delinquents would differ in their behavior. However, no difference was found based on self-report behavior and records of crimes against individuals.

Many of these differences were not found when QW scores were covaried. However, the same significant differences were found for the acceptability of hurting and fistfighting. QW scores correlated with the total Johnson Value Questionnaire score (−.39). The lower the level of verbal ability, the greater the acceptance of antisocial behavior. However, these two variables did not correlate significantly for the delinquent sample only. The results make it difficult to disentangle the relationships among delinquency status, acceptance of antisocial behavior, and verbal ability.
Unlike the results from the Johnson Values Questionnaire, delinquent and nondelinquent subjects did not differ in their endorsement of "subterranean values" based on the analyses of mean scores. This result is in contrast to the findings of Cernkovich (1978) and Segrave and Hastad (1983). Their studies found delinquents to endorse subterranean values to a greater degree than nondelinquents. One possible explanation for this discrepant finding could be that their delinquent samples contained higher percentages of delinquents who were below stage 3 in their moral reasoning. Level of moral reasoning was found to be a more important determinant of value orientation than delinquency status. There was no mean difference between delayed and mature moral reasoners, but delinquents below global stage 3 scored above the median to a greater extent than did delinquents and nondelinquents at global stage 3. The number of nondelinquents below global stage 3 was too small for statistical analysis, yet their scores are consistent with the findings from the delinquent sample. Of these 9 subjects, 7 (78%) of them scored above the median versus 32% of the global stage 3 delinquents.

These findings offer modest support for the idea that the transition from below global stage 3 to global stage 3 is an important one in determining one's acceptance of "conventional" or "subterranean values." In other words, the acceptance of a "conventional" value orientation is more
likely when one's reasoning is predominated by stage 3 moral reasoning as opposed to stage 2 moral reasoning. This is consistent with the structure of stage 2 and stage 3 moral reasoning. Stage 2 moral reasoning is the stage of instrumental hedonism, a belief in unconstrained freedom, and the importance of one's desires. This perspective would appear to allow for the short-term hedonism, thrill seeking, toughness, and valuing of the ability to con or dupe others that are part of the subterranean value orientation. The transition from stage 2 to stage 3 moves the focus toward an awareness of the mutuality of expectations and feelings, a concern with the expected conduct of roles, relationships, and underlying feelings and motivations. There is a move away from an emphasis on one's desires, that can quickly change, to the more stable expectations of mutuality and role-appropriate behavior. This less egocentric and more consistent perspective allows for the delaying of gratification, hard work, practicality, and rationality that make up the conventional value orientation.

The subterranean value orientation appears to be consistent with the values held by the "subcultural delinquent." Wenar (1982) describes subcultural delinquents as valuing physical prowess, the ability to outwit others, rebellion toward authority, and excitement. Wenar (1982) also states that "it is primarily the content of their socialization that is deviant" (p. 219). The current study
would suggest, however, that in addition to deviant content there is also a structural deficit in many of these delinquents.

To further define the relationship between cognitive-structural development, subterranean values, and delinquents, it would be helpful to study a sample of nondelinquents who are delayed in their moral reasoning and below stage 3. Just as stage 2 moral reasoning does not cause delinquency, but allows for it, it seems probable that stage 2 moral reasoning more easily "allows" for subterranean values and that other factors are involved in actualizing the underlying potential. This hypothesis requires further empirical testing. This hypothesis relates to a more basic question than that of the relationship of values, cognitive structure, and delinquency, and that is the question of the relationship between cognitive structure and content.

A hypothesis that was being tested by this study was that mature delinquents and mature nondelinquents would differ in the content of their values. This hypothesis was partially supported. No mean difference was found in the endorsement of subterranean values. There was modest evidence to suggest that level of moral reasoning was a more important factor. However, the acceptance of antisocial behavior was found to differentiate between mature delinquents and mature nondelinquents. The greater
acceptance of antisocial behavior would help to explain why some individuals with age-appropriate moral reasoning engage in antisocial behavior. Cognitive-developmental theories focus on the structure of social cognition and not the content. The current findings offer some support to those who believe that when attempting to relate cognitive structures to behavior, content cannot be ignored (Blasi, 1983; Jurkovic, 1980; Kuhn, 1978; Locke, 1983).

Although delinquency status was found to be related to the acceptance of some antisocial behavior, a greater difference was found between level of moral reasoning and the content of values. There appeared to be a definite link between level of moral reasoning and the values that were accepted. But, while a relationship exists, diverse values were present at each level of moral reasoning. This suggests that although cognitive-developmental theories play an important role in explaining values, and therefore delinquency, they fall short of being able to provide a comprehensive and all inclusive understanding. Much work remains to be done in explaining how these values are acquired. Further work in this area will be helpful in understanding delinquency.

Neutralization

It was hypothesized that delinquents engage in antisocial behavior, in part, because they are able to
justify antisocial behavior. Through neutralization, the justification of rule breaking, they would be able to circumvent prohibitions against antisocial behavior. This was hypothesized to be true especially for delinquents who had developed an age-appropriate level of moral reasoning. The results did not support this hypothesis. No significant difference was found between the criterion groups based on overall neutralization scores and the differences that were found indicated that nondelinquents used neutralization to a greater extent than delinquents.

A difference was found when the specific types of neutralization were examined. Mature nondelinquents utilized denial of responsibility to a greater extent than both mature and delayed delinquents. The mature nondelinquents more often reduced their ratings of how wrong an act was when the responsibility of the individual for the act was questionable. Mature delinquents reduced their ratings even less often than delayed delinquents, but the difference was not significant. In addition to the differences between groups on the use of denial of responsibility, within the mature nondelinquents there was a difference in how they responded to the different types of neutralization. Mature nondelinquents more often reduced their ratings of how wrong an act was when the responsibility of the individual for the outcome was questionable than when the act was performed to please
others (appeal to a higher loyalty). No such difference in the use of the different types of neutralization was found with the delayed or mature delinquents.

While there was no significant differences found based on the overall neutralization score, differences were found to the question concerning how morally right or wrong the actions were. Here the mature nondelinquents reduced their ratings of the moral wrongness of the action more often than did the mature delinquents and the delayed delinquents. An exception to this was that global stage 2 delinquents did not differ significantly from mature nondelinquents but did differ significantly from global stage 3 delinquents. Global stage 2 delinquents, more often than global stage 3 delinquents, reduced their ratings of how morally wrong the behaviors were. These differences on the morality question were not found, however, when QW and SES were covaried.

The neutralization results cast the concept of neutralization in a different light. Rather than being a self-serving cognitive maneuver that allows one to act in opposition to one's beliefs, it could reflect a cognitive flexibility and the ability to consider relevant circumstances in making moral decisions. The data seem to suggest that mature delinquents and mature nondelinquents differed in their approach to moral issues on a rigidity/flexibility dimension.
The fact that both the mature delinquents and mature nondelinquents were at a stage 3 level of moral reasoning suggests that the variable of rigidity/flexibility is either not a structural variable or is a structural variable that is separate from moral reasoning structures. Yet, it is not unrelated to moral structural development, as higher stage reasoners are better able to incorporate mitigating circumstances into their moral judgments.

Types of moral reasoning (formally called substages) have recently been defined that relate to Piaget's heteronomous and autonomous stages of justice (Gibbs et al., 1986; Kohlberg, 1976; Kohlberg, Levin, & Hewer, 1983). These orientations can be traced through the stages and correspond to type A and type B orientation. Type A consists of a focus on obedience to rules and authority, while type B focusses on fairness, equality, and reciprocity. Moral reasoning type or orientation has been found to relate to moral behavior (Gibbs et al., 1986; Kohlberg & Candee, 1983), with type B individuals being more likely to act in a way that is consistent with their beliefs. A focus on rules and authority would appear to be consistent with a more rigid approach, whereas a focus on fairness, equality, and reciprocity would seem to be consistent with a flexible approach. If this is so, the results reported by Gibbs et al. (1986) and Kohlberg and Candee (1983) are consistent with the present results.
Using delinquent behavior as an indication of not behaving in accordance with one's norms (being aware of the problems with this assumption; see Blasi, 1980), then the more flexible nondelinquents were better able to act according to their norms. What the neutralization measures appeared to measure was not self-serving justification of rule breaking behavior, but rather the cognitively mature ability to consider mitigating circumstances in making moral decisions.

Earlier studies (Ball, 1966; Priest & McGrath, 1970) had found that individuals that took part in antisocial behavior used neutralization to a greater extent. Neither of their studies used the Neutralization Measure of Lanza-Kaduce. Priest and McGraths' (1970) findings were based on interviews with young adult marijuana smokers. Ball (1966) used an instrument designed specifically for his study and found that delinquents tended to accept more excuses for antisocial behavior than did nondelinquents. No difference was found between delinquents who reported many offenses and those who reported few offenses. It is difficult to compare these earlier studies with the current study because limited information was reported on the subjects and the measures used. However, two factors may help to explain the different results obtained. First, neutralization, by definition, is a self-serving cognitive maneuver. The neutralization measure used in the present study may not have elicited self-serving motivation on the
part of the subjects. Responses to hypothetical vignettes often are devoid of the feelings and motivations that accompany actual participation in an event. Just as with the differences in cognitive-structural functioning in real versus hypothetical situations (Gilligan & Belenky, 1980; Maschette, 1977; Selman, 1980; Selman & Demorest, 1984), there is likely a difference in the degree to which neutralization is used in response to hypothetical vignettes and to real-life situations.

A second factor in the amount of neutralization employed may be the content of the vignettes. In this study delinquents were more accepting than nondelinquents of some forms of antisocial behavior. It is to be expected that delinquents would have less trouble cognitively getting around prohibition against these behaviors.

Ratings of Rightness and Wrongness on the Neutralization Measure

Delinquents, both delayed and mature, in comparison to mature nondelinquents, judged Jim's fire setting behavior on the Neutralization Measure to be morally and legally wrong to a greater extent and felt it to be deserving of more severe punishment. However, this was not true of the evaluations of the principal's behavior in the second vignette. Delinquents rated the principal's behavior as less morally wrong than the mature nondelinquents. A couple
factors may account for the difference in ratings between the two vignettes. First, the principal was acting in response to a person's breaking a window. The delinquent sample may have seen the window breaking as being behavior deserving of the severe reaction of the principal. Second, there were two mitigating factors that, based on the neutralization results, may have been considered to a greater extent by the mature nondelinquents. John claimed the window breaking was an accident and the principal failed to look into the matter in any detail. Based on these factors the results from the two vignettes do appear to be consistent in that the delinquents judged the behaviors more severely.

The differences found on the original ratings seem to be consistent with the rigidity/flexibility hypothesis suggested by the neutralization score. Delinquents apparently viewed the behavior in a more black and white or absolute manner.

An alternative hypothesis is suggested by the study of Dodge and Frame (1982). This study found aggressive boys to attribute hostile intentions to a greater extent than nonaggressive boys when the intent of the transgression was ambiguous. In the current study, the intent of the fire setter was ambiguous when subjects made their original ratings. The Dodge and Frame's results would suggest that the delinquent sample may have attributed hostile or
destructive intentions to the fire setter and this may have influenced their judgments.

It is not known what effect being incarcerated had on the ratings of the delinquents. Their responses may have been manipulative in nature. That is, they may have tried to present themselves as rehabilitated by judging these behaviors as wrong. This was unlikely, however, because they did rate many antisocial behaviors as acceptable on the JVQ. Another possible influence may have been the fact that they were in the process of being punished for their transgressions. Since they had been caught and punished they may have felt that it was only fair that others were also punished and therefore they rated others more harshly.

As noted, these results seem to run in opposition to the delinquent's greater acceptance of antisocial behavior on the Johnson Values Questionnaire. There are a number of possible explanations for this apparent discrepancy. The difference may be a function of the different content (the specific behavior asked about). The difference may also be a function of the question asked. On the Johnson Values Questionnaire subjects were asked how acceptable a behavior was. For the Neutralization Measure they were asked how morally and legally right or wrong a behavior was. It could be that the delinquent sample found behaviors that are morally and legally wrong to be more acceptable than the nondeliquent sample. Another possible factor is that the
person performing the action differed for the two measures. On the Neutralization Measure subjects were asked to judge the behavior of another person. On the Johnson Values Questionnaire the person performing the behavior was not specified, yet the behavior could more easily be applied to the person completing the questionnaire.

Results from the Neutralization Measure provided a number of indications that delinquents, especially stage 3 delinquents, were more rigid in their approach to moral issues. Why would a more rigid approach to moral issues be related to greater amounts of antisocial behavior? Is the rigidity a causative factor, or only a correlate to causative factors? These are questions in need of further research. A rigid approach to moral questions leaves one with standards that may be unobtainable. This may produce in individuals a feeling that failing to live up to one's standards is impossible and therefore transgressions are unavoidable and therefore may be more acceptable. While behaviors may be defined as wrong, these wrong behaviors may be more acceptable. The delinquents were more rigid in their approach to moral issues, yet they were also more accepting of antisocial behavior. This is consistent with Aichhorn's (1966/1925) view that excessive demands of the ego-ideal may play a role in delinquency.
Self-report Delinquency

As was expected, the delinquent subjects reported significantly more delinquent behavior than did the nondelinquent subjects. However, no differences were found between the delayed delinquents and mature delinquents in the amount or type of delinquent behaviors reported. This is consistent with the results of Jurkovic and Prentice (1977) and Robins (1966). The results do not support the findings reported by Jennings et al. (1983) that found the illegal behavior of a greater percentage of stage 3 delinquents supported the use of drugs. Stage 2 and stage 3 delinquents in the present study did not differ on the self-reported use of drugs and involvement in drug-related crimes. In addition to the self-report of delinquent behavior, no significant differences were found in drug-related convictions or treatment related to the use of drugs.

Thornton and Reid (1982) found the criminal behavior of stage 3 adults to include a greater percentage of crimes against persons. Based on self-report data and records of convictions, no difference was found in the current study between stage 3 and stage 2 delinquents. It seems likely that sampling and age differences could be responsible for the discrepant findings.
Role-Taking Opportunities

The results of ANOVAs run on the ORT data support the hypothesis that role-taking opportunities are related to development in moral reasoning. Stage 3 delinquents did not differ significantly from stage 3 nondelinquents, but both scored significantly higher than global stage 2 delinquents. The ORT differentiated between level of moral reasoning and not between delinquents and nondelinquents. However, the ORT correlated .21 with the QW and covarying QW eliminated the significance of the analysis.

The reason for the relationship between ORT scores and QW scores is not clear. The relationship does not appear to be due to the instrument used to measure role-taking opportunities. The ORT consists of 47 items that subjects rate as not true, somewhat true, or very true. It is not a production task and so verbal ability was not required for responding. Random responding would result in a score below the mean, yet two items were included to check for random responding. Therefore, if subjects were unable to comprehend the items because of limited verbal ability and responded randomly, their protocols were not used in the analyses.

It seems more likely that verbal ability as measured by the QW is related to role-taking opportunities as measured by the ORT. Role-taking opportunities include opportunities
that could be expected not only to promote cognitive-structural development, but also general academic development. These opportunities would likely promote greater involvement in the classroom and therefore increased learning. It also seems likely that parents who provide role-taking opportunities would, as a group, also value academic progress to a greater degree than parents who do not.

The construct validity of the ORT did not have previous empirical support. The items were selected based on their rational relationship to the construct of role-taking opportunity (Kohlberg, 1969). However, the empirical support hypothesized was not totally forthcoming. It was hypothesized that role-taking opportunities would correlate with SRMS. Empirical support for this hypothesis can be found in studies of parenting styles and social participation. Relationships have been demonstrated between parenting styles (inductive parenting styles promote role-taking opportunities, power-assertive parenting styles limit role-taking opportunities) and moral reasoning and moral development (Brody & Shaffer, 1982; Hoffman & Saltzstein, 1967; Leahy, 1981). The amount of social participation has also been found to be related to level of moral reasoning (Keasy, 1971).

ORT scores and SRMS scores did not correlate for the total sample, the delinquent sample, or the nondelinquent
sample. A correlational analysis may have failed to find a relationship between the ORT and the SRM because of the limited range of SRMS scores in this sample. A more adequate test of the hypothesis would require a greater range. There was a greater range of SRMS scores in the delinquent sample, yet there may have been confounding factors. Role-taking opportunities are most likely necessary, but not sufficient, for cognitive-structural development in the social realm. It is plausible that factors related to the delinquent behavior, such as psychological disturbance or coping styles, may also have prevented delinquents from benefiting from role-taking opportunities.

Despite the failure of the two measures to correlate, the anticipated differences were found when ANOVAs were run. However, these differences appear to be accounted for, in part, by the shared variable of verbal ability. QW scores correlated with both ORT scores (.21) and SRMS (.45). These significant differences were not found when QW scores were covaried.

Correlation of the ORT with other measures in this study are consistent with the construct of role-taking opportunity and demonstrate that a construct other than verbal ability is being measured. ORT scores correlated negatively with the Johnson Values Questionnaire (-.34) and the Subterranean Values Questionnaire (-.27). The greater
the role-taking opportunities the less the acceptance of antisocial behavior and of a value orientation geared toward short-run hedonism, toughness, thrills, and the ability to con others. The ORT correlated negatively with three MMPI measures of degree of psychopathology (F scale, -.32; A scale, -.26; and number of MMPI scales with a t-score over 70, -.26) and two MMPI scales related to acting out (Pd scale, -.29; Sc scale, -.32). The ORT also correlated with a scale suggesting defensiveness (K scale, .26) and correlated negatively with a scale indicating psychological distress (Pt scale, -.27) and social introversion (Si scale, -.27). The correlation of the ORT with MMPI scales suggests that those with limited role-taking opportunities experience greater psychopathology, act out more, experience greater psychological distress, are less defensive, and are more socially isolated. These qualities appear consistent with less social interaction and less involvement in decision making processes and therefore fewer opportunities and demands to take the perspective of others. However, these results are also consistent with other constructs that are associated with general mental health. Further research is needed to explore the discriminant validity of the ORT.

The current study attempted to empirically test and define the construct validity of the ORT and to test the hypothesized relationship between the development of moral reasoning and role-taking opportunities. Unfortunately,
this involves some logical difficulties as the demonstration of each proposition was partially dependent upon the assumed validity of the other. The ORT does have a certain amount of support for its construct validity that is not dependent on the hypothesized relationship between moral reasoning and role-taking opportunities. Face validity or rational validity is offered by the fact that the selection of items for the measure was based on the description of role-taking opportunities offered by Kohlberg (1969). Also, the correlation of ORT scores with various other measures in this study is consistent with the construct of role-taking opportunity. Evidence for discriminant validity, to differentiate it from verbal ability, was found in its correlating with many measures with which QW scores did not correlate. Further work is need not only to refine the ORT, but also to test and further define its construct validity.

Based on the partially supported construct validity of the ORT, the hypothesized association between role-taking opportunities and moral reasoning was partially supported. Mean differences were found on ORT scores between delayed and mature moral reasoners. However, the expected correlation between the SRMS and ORT scores was not found. As was noted, because of the limited range of moral reasoning and the confounding factor of delinquency, this study was not a strong test of the hypothesized
relationship. The results, though, were encouraging and suggest that further research should be conducted.

**Physical Punishment**

Significantly more delayed delinquents than mature nondelinquents reported that their parents used physical punishment on them in the past. Based on modal scores, 55% of delayed delinquents reported physical punishment in the past versus 37% of mature delinquents and 18% of mature nondelinquent. Similar results were found for the reporting of current physical punishment with the exception that significantly more modal stage 3 delinquents reported current punishment (25%) than modal stage 3 nondelinquents (6%). Thirty-nine percent of modal stage 2 delinquents reported current physical punishment. When these data are combined with the correlational and Chi-square data that demonstrate a positive relationship between past physical punishment and acceptance of antisocial behavior and greater self-report of delinquent behavior, they provide strong evidence for the relationship between physical punishment and delinquency. The results suggest that physical punishment is most highly associated with delayed moral reasoning in delinquents. A sample of delayed nondelinquents would need to be tested to determine the extent of the relationship between physical punishment and moral reasoning.
These results are consistent with the established relationship between parenting styles and moral development (Brody & Shaffer, 1982; Hoffman & Saltzstein, 1967; Leahy, 1981) and parenting styles and delinquency (West, 1982). They suggest that physical punishment maybe an especially vital factor.

The results are also consistent with those demonstrated by Welsh (1976). Welsh pointed to evidence from animal studies, field studies with children, and cross-cultural studies to support his hypothesis that severe parental punishment is an important factor in human aggression and especially in juvenile delinquency. He proposes that the level of delinquents' aggression is a function of the severity of parental punishment and that abused children may be at greater risk for becoming delinquents than any other group.

Welsh conducted a study that found a positive relationship between severity of physical punishment and level of aggression in a delinquent sample. Two levels of physical punishment were defined and three levels of aggressive behavior. Severe parental punishment consisted of restricted use of a belt and very severe physical punishment consisted of more severe use of a belt or other severe physical punishment. The three levels of aggressive behavior consisted of crimes against persons, crimes against
property, and behaviors that would generally be considered status offenses.

The current study did not differentiate between severity of physical punishment and did not include status offenders. The most direct replication of the Welsh study, comparing delinquents convicted of crimes against persons with those convicted of crimes against property, failed to find a significant difference on the presence or absence or amount of physical punishment. However, the data in Tables 10 and 11 do demonstrate a relationship between physical punishment and aggressive behavior.

**MMPI**

The MMPI is an empirically-keyed test. The original scales were not selected by rational means, but rather by the empirical association of items with specific criterion groups. The meaning of a specific score on a specific scale is determined by characteristics found to be associated with individuals that obtained a similar score. In interpreting the MMPI one needs to remember that the scales are not pure measures of the diagnosis or syndrome used to label the scale.

It is difficult to interpret individual scales on the MMPI. Partially as a result of the massive amount of research on the MMPI, many different descriptors are associated with each scale (Graham, 1979). In clinical use,
code types, i.e., combinations of scales, are more often used because of the greater specificity that can be obtained. Results could easily be biased if descriptors were selectively chosen to support one's hypothesis. Therefore, specific descriptors will not be utilized. Rather, general descriptors will be used to avoid possible bias. The general descriptors used are those of Graham (1979) unless otherwise noted.

The use of the MMPI with adolescents makes the task of meaningful interpretation even more difficult. Adolescent norms are available (Marks, Seeman, and Haller, 1974) and were used for this study. However, the meaning of MMPI scores is less clear for adolescents than for adults. As was noted above, the interpretation of scores on the ten clinical scales is not based on the content of the items, but on the empirical association of scores with extra-test behaviors and characteristics. Because of this, the greater the similarity between an individual and the criterion group from which the descriptors were obtained, the greater the likelihood that the descriptors will fit the test taker. The majority of the descriptors available for MMPI code types and scales are based on adults using adult norms. Marks et al. (1974) provide descriptors derived from adolescent norms with adolescents, yet only for common 2-point codes. Descriptors for individual scales are not presented. Because of this, the general descriptions of
individual scales used in this study are based mostly on adult data. Marks et al. (1974) note, though, that the observed behavior of some 17 year olds was found to be more congruent with the adult descriptors than the adolescent descriptors.

Based on mean scores, significant differences between delayed and mature delinquents were found on five MMPI scales (see Tables 29-37). On the Depression (D) scale global stage 3 delinquents scored higher than delinquents below global stage 3. The content of the 60 items on the D scale deal with sadness, feelings of limited self-worth, withdrawal, psychomotor retardation, and a lack of interest in one's environment. Graham (1979) reports that "Scale 2 [Depression] seems to be an excellent index of an examinee's discomfort and dissatisfaction with his life situation." (p. 36). Moderately high scores are not reflective of clinical depression, but rather of "a general attitude or life style characterized by poor morale and lack of involvement." (p. 36).

Global stage 3 delinquents also scored higher than delinquents below global stage 3 on the Masculinity/Femininity (Mf) scale. The content of the 60 items on the Mf scale deal with sexual material, work and hobby interests, worries, fears, social activities, religious preferences, and family relationships. High scores for males suggest a lack of stereotyped masculine
interests and possible conflicts in sexual identity and acceptance of the male role. Brighter, better educated, and higher SES individuals generally score higher on this scale. These factors were controlled for in the present study by covarying QW and SES. Acting out is reported to be rare among high scorers.

On the Anxiety scale global stage 2 delinquents scored higher than did global stage 3 delinquents. The Anxiety scale was designed by Welsh (1956). Commonly, two factors are found when the clinical scales on the MMPI are factor analyzed to discover common factors. Welsh constructed the Anxiety scale and Repression scale to measure these two factors. The factor measured by the Anxiety scale was originally titled "general maladjustment." The content of the 39 items on this scale deals with thought processes, negative emotions, pessimism, lack of energy, and malignant mentations (Welsh, 1956). High scores are seen as suggesting general maladjustment (Graham, 1979) with some preferring the original "general maladjustment" label to the current Anxiety label (Dahlstrom, Welsch, and Dahlstrom, 1975).

On the Repression scale global stage 3 delinquents scored higher than global stage 2 delinquent and delinquents below global stage 3. The R scale was also constructed by Welsh (1956). This scale measures the second factor often found to be common to the 10 clinical scales. The content
of the 40 items varies greatly, including such areas as health and physical symptoms, emotionality, social dominance, feelings of inadequacy, and personal and vocational interests (Welsh, 1956). Based on adult norms stage 3 delinquents were close to the mean, with the delayed delinquents being below the mean. In general, high scorers are internalizers who are characterized by repression and denial. Low scorers tend to be externalizers and act out.

On the MacAndrews Alcoholism scale delinquents below global stage 3 scored higher than global stage 3 delinquents. This scale was found to differentiate between adult alcoholics and adult psychiatric patients (MacAndrew, 1965). Adolescent norms are not available and the meaning of the scale for an adolescent population is not clear. It is likely, though, that the higher the score, the greater the likelihood of the abuse of alcohol. The meaning of this difference between delayed and mature delinquents is also limited by the small mean difference in raw scores (see Tables 31 and 37). While statistically significant, the clinical value of a two-point difference is questionable.

The results of the analyses of mean scores on individual scales suggest some basic differences between mature and delayed delinquents. Mature delinquents appear to be more dissatisfied with their present life situation, have poorer morale, have more feminine interests, and less male bravado, and tend to be internalizers. Delinquents
below global stage 3 appear to externalize more and
delinquents at global stage 2 appear to be more generally
maladjusted.

In addition to looking at the means of individual
scales, the MMPI results were also examined by code type.
In clinical practice profiles are generally referred to or
described by the scales that have the highest elevations.
In dealing with group data, Butcher and Tellegen (1978)
recommend against the use of group mean profiles (e.g.,
describing global stage 3 delinquents as 984's, meaning the
group's three highest mean scores were on the Ma, Sc, and Pd
scales.). Rather, they recommend that the percentage of
subjects with specific code types be used.

The MMPI clinical scales can be divided into those that
are associated with the inhibition and control of impulses
(Hs, D, Hy, Mf, Pt, Si) and those that are associated with
difficulty with the control of impulses (Pd, Pa, Sc, Ma;
Graham, 1979). The Hs, D, and Hy scales, three scales found
among the scales associated with the inhibition of impulses,
are commonly referred to as the neurotic triad. Hathaway
and Monachesi (1963) found scales D, Mf, and Si to be
inhibitors of manifest delinquent behaviors and Pd, Sc, and
Ma scales to be "excitatory scales" for delinquent
behavior.

The classification of MMPI scales into those that
reflect the control of impulses and those that reflect the
lack of control of impulses is consistent with Achenbach's (1982) broad-band categories of internalizers and externalizers. It is also consistent with the common distinction in child psychopathology between children who internalize and children who act out. Anthony (1970) notes that the internalizing/externalizing distinction is found in traditional clinical classifications of child psychopathology, in classifications devised for research purposes, and in classifications developed with statistical methods.

In interpreting the MMPI it is not only important to look at which scales are elevated, but also at how high they are elevated. A standard cutoff point for pathology is a t-score of 70. Scores at or above 70 are thought to be out of the normal range and suggestive of psychopathology.

Of the subjects with at least one scaled score at or above 70, a significantly greater proportion of mature delinquents than delayed delinquents had an "internalizing" scale among their two highest scales. This is consistent with the results of the analyses on mean scale scores. These results suggest that the personality functioning and psychopathology of delinquents in certain ways parallel their level of social-cognitive development as measured by moral reasoning. Parallels were found between how delinquents respond to conflicts, impulses, and desires (as measured by the MMPI) and how they think about what is right
and wrong. The data from this study suggest similarities along the dimension of internality/externality.

Stage 2 moral reasoners focus more on external factors in thinking about what is right and what is wrong. Concrete reciprocity is important. Delinquents below stage 3 were more likely to deal with psychological needs in a similar way. Their psychological functioning appears to tend more toward action than thought. Their focus and energy appears to be directed more externally on behavior, with their feelings being acted on and not reflected on.

Stage 3 moral reasoners, on the other hand, have a greater internal focus. Relationships, mutuality, feelings, and expectations become more salient in thinking about right and wrong. This more internalized frame of reference was also found on the MMPI results. Despite having run into trouble with society for having "acted out", they demonstrated a greater tendency to react to conflicts, desires, and feelings with internal control, thought, and awareness. There was more evidence of a cognitive as opposed to a behavioral reaction to conflict and affect.

Much of the research exploring the interaction of moral reasoning and personality factors focuses on the effect of this interaction on behavior, or, the judgment/action relationship. There is limited research on the relationship of cognitive-developmental structures to types of personality and psychopathology. The current results are
consistent with the research that has been conducted. Ruma and Mosher (1966) found guilt to correlate with moral reasoning and Jurkovic and Prentice (1977) found a trend toward neurotic delinquents' moral reasoning being higher than psychopathic delinquents' moral reasoning. Noam et al. (1984) found a positive relationship between Achenbach's externalizing factor and lower levels of ego development in an adolescent psychiatric population. However, unlike the present study, no relationship was found between an internalizing factor and higher levels of ego development.

There is also limited research on the developmental relationship between social-cognitive structures and personality factors. The personality or psychopathological differences between stage 2 and stage 3 delinquents are consistent with a developmental relationship between these factors. The cross-sectional design employed in this study does not allow for the testing of developmental relationships, however, the findings do allow for speculation about such a relationship.

One of those who has proposed a developmental relationship between personality factors and moral reasoning is Jurkovic (1980). He proposed that certain emotional developments may be necessary for social-cognitive development: "Careful consideration should also be given in future training studies to the importance of affective variables in stage transition, especially from stage 2 to 3
in Kohlberg's framework. To the extent that conventional level reasoning is shaped, at least in part, by a previously acquired sense of trust, a critical mechanism of change may be the development of give and take or functionally reciprocal relationships with others. In the same way that practical intelligence paves the way for its conscious realization, so may mature interpersonal relating act as a precursor to reflective moral judgments that incorporate interpersonal concordance and trust as their central theme" (p. 719). Thus, the ability to enter into trusting relationships may be a prerequisite for stage 3 moral reasoning.

Noam (1985) has also looked at the developmental relationship between personality factors and social-cognitive structures. He relates stable personality traits or styles to social-cognitive development. He describes two types of personality styles (one focused on individuation and the other on affiliation) that arise out of early experiences and that remain more or less stable traits over time. These styles are seen as interacting with level of social-cognitive development to either foster or delay development. Noam borrows from Kegan (1982) and Selman (1980) in working with stages of self-other structures that correspond with Kohlberg's stages of moral reasoning. He categorizes stages 2 and 4 as being focused on differentiation or individuation and stages 3 and 5 as
being focused on integration or affiliation. Noam proposes that the individuation-oriented personality style speeds development into the differentiation-oriented stages 2 and 4. A similar relationship is proposed between the integration-oriented styles and the affiliative stages 3 and 5.

Noam proposes two mechanisms by which development might be delayed: defensive avoidance and defensive overassimilation: "An individual may have difficulty entering into the transition from a stage that is syntonic with the stylistic orientation to one that is more dystonic (interlocking). The result may be a defensive avoidance of the new experiences that could otherwise lead to a structural reorganization (defensive overassimilation). Matching and interlocking positions...can interrupt the momentum of development because new accommodation is experienced fundamentally as ego-dystonic. Only powerful new social experiences and phasic demands will trigger developmental reorganization, often experienced as particularly painful." (p. 338).

Noam presents an attractive and stimulating integration of social-cognitive structures and personality factors. However, his model deals with personality traits that remain stable over time. He does not attempt to work with emotional and personality factors that are developmental in nature. Factors such as guilt, frustration tolerance,
trust, and delay of gratification develop over time and may relate to social-cognitive development in a different way than Noam's styles of individuation (boundary style) and affiliation (relational style). Noam's model is a well-elaborated model of the idea held by many that emotional factors can delay or advance social-cognitive development (Cowan, 1982; Damon, 1983; Piaget, 1981).

There are at least three possible developmental relationships between the development of social-cognitive structures and the development of personality or psychopathological factors. The results of the current study are consistent with all three of the possible relationships. First, certain aspects of emotional and personality development may be necessary for certain social-cognitive structures to develop. Jurkovic's view of trust and moral reasoning is consistent with this relationship. A second possibility is that social-cognitive development is a prerequisite for emotional or personality development. Chandler, Paget, and Koch (1978) found a relationship between cognitive development and the understanding of psychological defenses. While acknowledging the difficulty of relating understanding of defenses to the use of defenses, Chandler, Paget, and Koch's results suggest that cognitive ability could limit the type of psychological defenses available to an individual. A third possible developmental relationship is that
social-cognitive structures and personality factors develop in synchrony, both being manifestations of a deeper structure or both being different aspects of the same structure. This relationship is consistent with Piaget's view of cognition and emotion as being two aspects of the same basic structure (Piaget, 1981).

In addition to the comparison of delayed and mature delinquents on the MMPI, this study also allows for the comparison of mature delinquents with nondelinquents on the MMPI. This comparison is based on the mature delinquents in this study and the adolescent norms provided by Marks et al., (1974). These norms are based on 1800 "normal" adolescent from rural and urban areas across the United States. A large portion of the sample was described as "mostly average boys and girls, normal or near it, who did not need special help" (p. 134). No data is available on the moral reasoning level of the normative sample, however, because of their "normal" status it can be assumed that the majority of them were at an age-appropriate level of moral reasoning.

The mature delinquents showed a rather large amount of psychopathology. Eighty-two percent of the global stage 3 delinquents had a score on an MMPI clinical scale at least two standard deviations above the mean. Two standard deviations above the mean is the generally accepted cutoff for abnormality. It seems likely that this psychopathology
was a factor in their antisocial behavior. No pattern was evident in the elevated scores and so little can be said about the type of psychopathology. In comparison to delayed delinquents they showed a greater amount of internalizing tendencies or psychopathology, yet in comparison to the normative sample of Marks et al. (1974) they had mean scores on 3 externalizing and 4 internalizing scales at least one standard deviation above the mean.

The comparison of delinquents at an age-appropriate level of moral reasoning with nondelinquents suggests that personality functioning or psychopathology is a factor in antisocial behavior. This is consistent with the focus of the growing literature that views personality functioning as a mediator between social-cognitive structures and behavior and consistent with those who look to psychopathology to help understand delinquency (Marshall, 1983; Offer, Marohn, & Ostrov, 1979; Weiner, 1970).

**Summary of delinquents with mature moral reasoning**

The subsample of delinquents who had developed age-appropriate or mature moral reasoning differed from the subsample of delinquents that were delayed in their moral reasoning. The mature delinquents accepted antisocial behavior to a lesser extent and a smaller proportion of them showed a high acceptance of subterranean values. They reported being exposed to a greater number of role-taking
opportunities. The MMPI results suggested that mature delinquents were less likely to act out and that they tended to internalize their feelings to a greater extent. They were experiencing less satisfaction with their situation in life and their interests and orientations were less traditionally masculine and more feminine.

Mature delinquents did not differ from delayed delinquents on QW scores, the amount or severity of delinquent behavior they reported, crimes against persons or property as listed on their records, or in the percentage that reported past physical punishment.

Mature delinquents differed from mature nondelinquents in many ways. In making this comparison it must be remembered that these groups were not matched on SES and verbal ability, yet, where possible, these variables were covaried in analyses. The nondelinquents had significantly higher SES and QW scores. It is possible that these differences may be in part responsible for other differences that were found. In addition, while all "mature" subjects were global stage 3 or modal stage 3, the mature nondelinquents had a significantly higher mean SRMS (312) than did the mature delinquents (300). While statistically significant, the clinical meaningfulness of this 12 point mean difference would seem to be limited. It is not known what impact, if any, this difference had on the results.
A smaller percentage of mature delinquents than mature nondelinquents were living with their natural parents. The mature delinquents reported more current physical punishment from their parents and they found fistfighting and taking something of small value from a rich person as more often acceptable. They were more rigid in their moral judgments, i.e., less willing to take into account mitigating circumstances in moral judgments. In addition, they judged behaviors to be more morally wrong and deserving of greater punishment. On the MMPI their mean t-scores on 7 of the 10 clinical scales were between 60 and 70 and their mean F-scale score was 71. These results suggest that there is a greater amount of psychopathology among the mature delinquents than the normative sample of Marks et al. (1974).

Mature delinquents and mature nondelinquents did not differ on a number of important variables. No significant difference was found on the amount of role-taking opportunities and past physical punishment. There was also no difference found on the acceptance of subterranean values and the overall score from the Johnson Values Questionnaire.

The differences between delayed and mature delinquents have implications for the value of classifying delinquents as delayed or mature in moral reasoning. The value of a classification system is determined by how well it serves the purpose for which it is used. The data collected in
this study is relevant for judging the value of the delayed/mature delinquent classification in the areas of clinical and heuristic value.

Clinical implications

The differences found between delayed and mature delinquents support the value of classifying delinquents into those delayed in moral reasoning and those who have developed to an age-appropriate level of moral reasoning. The differences have implications for the understanding of delinquents and for appropriate treatment interventions.

Psychological treatment needs to be geared toward the cognitive level of the individual (Breslow, 1985; Garber, 1984; Kendall, Lerner, & Craighead, 1984). This idea is generally accepted. What is disputed is what the focus or target of treatment should be. Cognitive-developmental theories have lead to interventions that target structural development as the focus and goal of treatment (Berkowitz & Oser, 1985; Gibbs et al., 1984). However, the fact that many delinquents reason at an age-appropriate level indicates that structural maturity is not sufficient. Many factors have been proposed as mediators of social-cognitive structures and behavior and these factors may also need to be addressed in treatment. Based on the current results a number of treatment recommendations can be made for delayed delinquents and mature delinquents.
Delayed delinquents are by definition delayed in their social-cognitive structural development. This structural deficit offers one obvious target for treatment. Yet, the appropriate intervention for addressing this structural deficit may vary. Results from the ORT indicated that delayed delinquents, as a group, were exposed to fewer role-taking opportunities than mature delinquents and mature nondelinquents. However, there was much variability among the delayed delinquents in scores on the ORT. Delayed delinquents who were limited in their exposure to role-taking opportunities would appear to be those most likely to be able to benefit from interventions targeting structural growth (e.g., dilemma discussion groups). These interventions may be of less value to delayed delinquents who have had much exposure to role-taking opportunities. What needs to be explored in these cases is why they have failed to benefit from their exposure to role-taking opportunities. Thus, the source of this social-cognitive delay would need to be targeted along with the structural delay.

A likely source of the inability to benefit from social stimulation is the psychopathology that was evident in the MMPI results. It could be that the more external, self-centered perspective of stage 2 reasoning serves a defensive purpose for some delinquents, protecting them from unpleasant affect and challenges to their psychological
integration and well-being. If this were the case, there would be much resistance towards moving beyond stage 2. Another possibility is that their environment might pull for stage 2 reasoning. In some families and subcultures stage 2 reasoning can be more functional and adaptive. Jurkovic (1980) hypothesized that the capacity for interpersonal trust may be necessary for the transition from stage 2 to stage 3. The failure to develop this capacity could result in the inability to benefit from role-taking opportunities. Finally, Noam (1985) suggested that individuals with boundary-oriented personality styles would have greater difficulty making the transition from stage 2 to stage 3. These are four possible factors that may prevent individuals from fully benefitting from role-taking opportunities and therefore developing past stage 2. It may be helpful to target these factors in the treatment of stage 2 delinquents who have had adequate exposure to role-taking opportunities.

The existence of delinquents with age-appropriate moral reasoning presents a problem for cognitive-developationally based interventions. The question arises, that if treatment succeeds in stimulating structural development, what indication is there that a delayed delinquent will not become a mature delinquent? The fact that delayed delinquents differed from mature nondelinquents in ways other than social-cognitive development suggests that other factors may also need to be targeted in treatment.
Traditional cognitive-developmental interventions are less relevant for delinquents who have developed age-appropriate moral reasoning. The issue for this group is the use of the capabilities they have already developed and factors that mediate the relationship of social-cognitive structures and behavior. Factors such as responsibility (Jennings et al., 1983), evocation and utilization (Flavell, 1971; Jurkovic, 1980), regression (Breslow, 1985; Selman, 1980; Sroufe & Rutter, 1984), content of values (Blasi, 1980; Jurkovic, 1980; Kuhn, 1978), coping and defense mechanisms (Haan, 1978; Villenave-Cremer & Eckensberger, 1985), "good will" and "strong will" (Blasi, 1985), and substage orientation (Gibbs et al., 1986; Kohlberg & Candee, 1984) have all been identified as mediators of social-cognitive structures and behaviors and are possible targets for the treatment of mature delinquents. In addition, other targets for treatment could be factors that have been found to be associated with delinquency in general (Blos, 1979; Freud, 1965; Johnson, 1979; Marshall, 1983; Offer et al., 1979; Weiner, 1970).

The results of the current study suggest four areas for intervention to focus on. The first area, personality functioning and psychopathology, is not well defined by the current results. It is very likely that the psychopathology evident in both the delayed and mature delinquents is related to their antisocial behavior. However, no clear
pattern of psychopathology was evident. This was consistent with results that have found no single delinquent or criminal personality (Quay, 1965) and with theorists that postulate numerous personality/psychopathological factors that relate to delinquency (Freud, 1965; Marshall, 1983; Offer et al., 1979). Compared with delayed delinquents, mature delinquents demonstrated a greater amount of internalizing in their personality functioning and psychopathology. However, both internalizing and externalizing pathology was evident when mature delinquents were compared with nondelinquents.

A second possible focus for intervention is the content of mature delinquents' values. While more true of delayed delinquents than mature delinquents, mature delinquents were somewhat more accepting of antisocial behavior than nondelinquents.

A third difference between mature delinquents and mature nondelinquents was that the delinquents were more rigid in their approach to moral judgments. The reason for this rigidity and its impact on antisocial behavior is not known. It could reflect a difficulty with ambiguity or a defensive mechanism such as reaction formation.

A final difference between mature delinquents and mature nondelinquents with treatment implications was the difference in percentage of subjects living with their natural parents. The majority of delinquents were not
living with both natural parents and the majority of nondelinquents were. This suggests that the family plays a role in antisocial behavior. As such, the pathogenic factors in families of mature delinquents may be appropriate targets for treatment. Family treatment (L. Hoffman, 1981) has been growing in sophistication and popularity. Dobert and Nunner-Winkler (1985) note that the family has been somewhat neglected in theories of cognitive development. Their discussion of the role of the family in moral development provides many implications for family therapy and moral development.

Conclusion

Kohlberg's theory of moral reasoning studies social functioning primarily from the perspective of social-cognitive structures. While this perspective has provided valuable insight into social development and functioning, its heuristic and applied value can be maximized by acknowledging its limitations and placing it in its proper relationship to other theories (Gibbs & Schnell, 1985). The same can be said for developmental psychology as a whole.

Social development and functioning are complex phenomena that are studied by different disciplines from different perspectives. These different disciplines offer different methodologies, theories, insights, and data bases
that all relate to social functioning. This study attempted to use concepts developed by developmental psychology and clinical psychology to better understand the antisocial behavior of adolescents who had developed the capacity for age-appropriate moral reasoning. The results suggested that the concepts of both fields of study were related to the antisocial behavior and to each other. The correlational nature of the data did not allow for conclusions concerning specific causal relationships, yet, they were consistent with causal relationships between social-cognitive structures and personality factors. A relationship was suggested not only among social-cognitive structures, personality/psychopathological factors, and current functioning and behavior, but also between the development of social-cognitive structures and personality/psychopathological factors.


APPENDIX A

INTRODUCTION FOR PARTICIPANTS FROM THE OHIO DEPARTMENT OF YOUTH SERVICES TRAINING FACILITY
Introduction for Participants From the Ohio Department of Youth Services Training Facility

This study is being conducted by Steven Schnell, a doctoral graduate student at The Ohio State University. He has no affiliation with this facility, the Ohio Department of Youth Services, or the Juvenile court system.

The purpose of this study is to look at how adolescents who have been convicted of a crime differ from one another and how they think about what is right and wrong. The study also is looking at how adolescents who have been convicted of a crime differ from those who have not been convicted of a crime. You will be asked to complete a number of different questionnaires. Some will ask you to write out responses and some will ask you to select one of the given responses. You will be asked to provide your opinion on various issues and to provide some information about yourself and your past experiences. These questionnaires will be completed in two sessions of approximately one and a half hours each.

The information you provide will be kept confidential. You will be asked to put your name on the questionnaires so the material from the two sessions can be matched with information on why you were placed at this facility. When the information is organized, all names will be removed. At no time will any information with your name or other identifying information on it be shown to anyone not working
on this study. **No one** from this facility, the juvenile court system, or anyone else not working with the study will learn of your responses.

There is no foreseeable danger for anyone taking part in this study. Those taking part may benefit by having an opportunity to think about some important issues. It is hoped that the knowledge gained from this study will help in the understanding and treatment of adolescents who have been convicted of crimes. A report of the results will be available from Steven Schnell at the completion of the study. He may be reached by contacting the Department of Psychology, Room 411 Arps Hall, The Ohio State University.
APPENDIX B

CONSENT FOR PARTICIPATION IN SOCIAL AND BEHAVIORAL RESEARCH
THE OHIO STATE UNIVERSITY

CONSENT FOR PARTICIPATION IN
SOCIAL AND BEHAVIORAL RESEARCH

I consent to participating in (or my child's participation in) research entitled:

Correlates of Delayed and Nondelayed Moral Reasoning in Delinquents

John C. Gibbs
(Principal Investigator)
or his/her authorized representative has
explained the purpose of the study, the procedures to be followed, and the expected duration of my (my child's) participation. Possible benefits of the study have been described as have alternative procedures, if such procedures are applicable and available.

I acknowledge that I have had the opportunity to obtain additional information regarding the study and that any questions I have raised have been answered to my full satisfaction. Further, I understand that I am (my child is) free to withdraw consent at any time and to discontinue participation in the study without prejudice to me (my child). The information obtained from me (my child) will remain confidential unless I specifically agree otherwise by placing my initials here ____________.

Finally, I acknowledge that I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Date: __________________________ Signed: _______________________
(Participant)

Signed: ____________________________ Signed: _______________________________
(Principal Investigator or his/her Authorized Representative) (Person Authorized to Consent for Participant - If Required)

Witness: ____________________________

HS-027 (Rev. 12-81) -- To be used only in connection with social and behavioral research.
APPENDIX C

INSTRUCTIONS FOR THE FIRST SESSION - DELINQUENT SAMPLE
Instructions for the First Session - Delinquent Sample

Good afternoon. My name is Steve Schnell and I want to thank you for taking part in this study. You should all have received information on the purpose of this study and what your participation will involve. This study is looking at how adolescents who have been convicted of a crime think about certain issues and how other factors relate to these opinions. The study will involve two two-hour sessions. During each session there will be a ten minute break during which Coke and cigarettes will be provided.

All the information you provide will be kept confidential, i.e., no one at this center or anyone else not directly involved in the study will see your responses. Only myself and my assistants at OSU will ever see your responses. Are there any questions?

(Consent forms and pencils handed out, consent form read to them, they were allowed to ask questions, consent forms were signed and collected)

On the questionnaires I do not want your full name. Please put only your first name, your last initial, and your group number.

(Questionnaires handed out)

The instructions for each section are printed at the start of each section. If there are any questions about what you are to do or if you do not understand a word that you have read, please ask.
APPENDIX D

INSTRUCTIONS FOR THE SECOND SESSION - DELINQUENT SAMPLE
Instructions for the Second Session - Delinquent Sample

Good afternoon. The procedures today will be the same as last week. This will be a two hour session and there will be a ten minute Coke and cigarette break in the middle. Once again, all the information you provide will be kept confidential, i.e., no one other than myself and other people at OSU who are working on the project will see your responses. No one at this center or from the juvenile court system will learn of your responses.

(Pencils, questionnaires, and MMPI answer sheets handed out)

Once again, I do not want your last name on these papers. Please put your first name, last initial, and group number on the answer sheet and on the first page of the questionnaire. Put the answer sheet to the side. You will not need it right away. You will begin with the questionnaire. When you finish with it, raise your hand and I will bring you a booklet of questions that you will answer on the answer sheet. The instructions are on the first page of the booklet. Put all the answers on the answer sheet. Do not mark in the booklet. Be sure that the number you are marking on the answer sheet matches the number in the booklet (repeated during testing). If you mix up the numbers or answer the questions randomly it will show up in the scoring and you may be asked to do the questionnaire again. Are there any questions? (repeated during testing).
Social Reflection Questionnaire

Instructions

In this booklet are two social problems with questions for you to answer. We are asking the questions not just to find out your opinions about what should be done in the problems, but also to understand why you have those opinions. Please answer all the questions, especially the "why" questions. Feel free to use the backs of the pages to finish writing your answers if you need more space.

Name: _____________________________
Age: _______________________________
Sex (circle one): male/female
Father's job: _______________________
______________________________
Mother's job: _______________________
______________________________
Date: _____________________________

9/27/79
Form A
(code #: ____________________
Problem 01

In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist wanted people to pay ten times what the drug cost him to make.

The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about half of what the druggist wanted. Heinz told the druggist that his wife was dying, and asked him to sell it cheaper or to let him pay later. But the druggist said, "No. I discovered the drug and I'm going to make money from it." So the only way Heinz could get the drug would be to break into the druggist's store and steal it.

Heinz has a problem. He should help his wife and save her life. But, on the other hand, the only way he could get the drug she needs would be to break the law by stealing the drug.

What should Heinz do?

should steal/should not steal/can't decide (circle one)

Why?

Let's change things about the problem and see if you still have the opinion you circled above (should steal, should not steal, or can't decide). Also, we want to find out about the things you think are important in problems like these, especially why you think those things are important. Please try to help us understand your thinking by WRITING AS MUCH AS YOU CAN TO EXPLAIN YOUR OPINIONS—EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE. Don't just write "same as before." If you can explain better or use different words to show what you mean, that helps us even more. Please answer all the questions below, especially the "why" questions.

1. What if Heinz's wife asks him to steal the drug for her? Should Heinz

steal/not steal/can't decide (circle one)?
la. How important is it for a husband to do what his wife asks, to save her by stealing, even when he isn't sure whether that's the best thing to do?

very important/important/not important (circle one)

1b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?

2. What if Heinz doesn't love his wife? Should Heinz:

steal/not steal/can't decide (circle one)?

2a. How important is it for a husband to steal to save his wife, even if he doesn't love her?

very important/important/not important (circle one)

2b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?

3. What if the person dying isn't Heinz's wife but instead is a friend (and the friend can get no one else to help)? Should Heinz:

steal/not steal/can't decide (circle one)?

3a. How important is it to do everything one can, even break the law, to save the life of a friend?

very important/important/not important (circle one)

3b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?
4a. What about for a stranger? How important is it to do everything one can, even break the law, to save the life of a stranger?

very important/important/not important (circle one)

4b. Why is that very important/important/not important (whichever one you circled)?


5. What if the druggist just wants Heinz to pay what the drug cost to make, and Heinz can't even pay that? Should Heinz:

steal/not steal/can't decide (circle one)?

5a. How important is it for people not to take things that belong to other people?

very important/important/not important (circle one)

5b. Why is that very important/important/not important (whichever one you circled)?


6. What if Heinz isn't sure what he should do, but thinks of the fact that stealing is against the law? Should Heinz:

steal/not steal/can't decide (circle one)

6a. How important is it for people to obey the law?

very important/important/not important (circle one)

6b. Why is that very important/important/not important (whichever one you circled)?


7. What if Heinz does steal the drug? His wife does get better, but in the meantime, the police take Heinz and bring him to court. Should the judge:

jail Heinz/let Heinz go free/can't decide (circle one)?

7a. How important is it for judges to go easy on people like Heinz?

very important/important/not important (circle one)

7b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?


8. What if Heinz tells the judge that he only did what his conscience told him to do? Should the judge:

jail Heinz/let Heinz go free/can't decide (circle one)?

8a. How important is it for judges to go easy on people who have acted out of conscience?

very important/important/not important (circle one)

8b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?


9. What if Heinz's wife never had cancer? What if she was only a little sick, and Heinz stole the drug to help her get well a little sooner? Should the judge:

jail Heinz/let Heinz go free/can't decide (circle one)?
9a. How important is it for judges to send people who break the law to jail?

very important/important/not important (circle one)

9b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?
Problem #2

Joe is a fourteen-year-old boy who wanted to go to camp very much. His father promised him he could go if he saved up the money for it himself. So Joe worked hard at his paper route and saved up the $40 it cost to go to camp and a little more besides. But just before camp was going to start, his father changed his mind. Some of his friends decided to go on a special fishing trip, and Joe's father was short of the money it would cost. So he told Joe to give him the money Joe had saved from the paper route. Joe didn't want to give up going to camp, so he thinks of refusing to give his father the money.

Joe has a problem. Joe's father promised Joe he could go to camp if he earned and saved up the money. But, on the other hand, the only way Joe could go would be by disobeying and not helping his father.

What should Joe do?

should refuse/should not refuse/can't decide (circle one)

Why?

Let's change things about the problem and see if you still have the opinion you circled above (should refuse, should not refuse, or can't decide). Also, we want to find out about the things you think are important in problems like these, and especially why you think those things are important. Please try to help us understand your thinking by WRITING AS MUCH AS YOU CAN TO EXPLAIN YOUR OPINIONS--EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE. Don't just write "same as before." If you can explain better or use different words to show what you mean, that's even better. Please answer all the questions below, especially the "why" questions.

1. What if Joe hadn't earned the money? What if the father had simply given the money to Joe and promised Joe could use it to go to camp--but now the father wants the money back for the fishing trip? Should Joe:

refuse/not refuse/can't decide (circle one)
1a. How important is it for parents to keep their promises about letting their children keep money—even when their children never earned the money?

very important/important/not important (circle one)

1b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?


2a. What about keeping a promise to a friend? How important is it to keep a promise, if you can, to a friend?

very important/important/not important (circle one)

2b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?


3a. What about to anyone? How important is it to keep a promise even to someone you hardly know?

very important/important/not important (circle one)

3b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?


4. What if Joe’s father hadn’t told Joe to give him the money, but had just asked Joe if he would lend the money? Should Joe:

refuse/not refuse/can’t decide (circle one)?
4a. How important is it for children to help their parents, even when their parents have broken a promise?

very important/important/not important (circle one)

4b. WHY IS THAT very important/important/not important (whichever one you circled)?

5. What if Joe's father had told Joe he might not be able to keep the money he earned?

Should Joe:

refuse/not refuse/can't decide (circle one)

5a. How important is it for parents not to take money that their children have earned—even when the parents did not promise their children that they could keep the money?

very important/important/not important (circle one)

5b. WHY IS THAT very important/important/not important (whichever one you circled)?

6. What if the father needs the money not to go on a fishing trip, but instead to pay for food for the family? Should Joe:

refuse/not refuse/can't decide (circle one)

6a. How important is it for children to help their parents—even when it means that the children won't get to do something they want to do?

very important/important/not important (circle one)

6b. WHY IS THAT very important/important/not important (whichever one you circled)?
APPENDIX F

OPPORTUNITY FOR ROLE-TAKING MEASURE
Role-Taking Opportunities Questionnaire

This questionnaire asks about experiences you have had. For each item you are to indicate how true it is for you or how often it is true for you by circling the appropriate number.

For each item the possible answers are:

0 = NOT TRUE OR RARELY TRUE
1 = SOMEWHAT TRUE OR SOMETIMES TRUE
2 = VERY TRUE OR OFTEN TRUE

Sometimes it may be difficult to decide because different teachers or different friends may treat you in different ways. Try to make an overall rating, even though it may be difficult. Circle just one response for each item.

<table>
<thead>
<tr>
<th></th>
<th>NOT TRUE OR RARELY TRUE</th>
<th>SOMEWHAT TRUE OR SOMETIMES TRUE</th>
<th>VERY TRUE OR OFTEN TRUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am involved in many activities at school.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Teachers put me down when I disagree with them.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. During grade school (grades 1-6), I belonged to clubs or organizations.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. During grade school, teachers did not allow me to question their decisions.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. During grade school, I had a say in classroom activities.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. During grade school, teachers would punish me, even if I did not mean to do something wrong.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. During grade school, if I did something wrong, teachers would not discuss the matter with me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. Teachers seem to ignore me and do not want to hear what I have to say.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. I join in class discussions.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. Teachers and I argue when we try to discuss something.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11. Teachers give me much responsibility.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12. My teachers are not willing to change a rule, even if the students convince them it is wrong.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>NOT TRUE OR RARELY TRUE</td>
<td>SOMEWHAT TRUE OR SOMETIMES TRUE</td>
<td>VERY TRUE OR OFTEN TRUE</td>
</tr>
<tr>
<td>---</td>
<td>------------------------</td>
<td>-------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>13. I have held an office, such as president, secretary, or editor, for a class or organization.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>14. During grade school (grades 1-6), I was active in an organization at my church or synagogue.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>15. My friends are very similar to me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>16. I have had to adjust to different groups of friends.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>17. I have many friends and talk to them very often.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>18. During grade school, I had many friends who were older than myself.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>19. When with my friends, I am more of a follower than a leader.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>20. My friends and I do not talk about our opinions when they differ.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>21. My friends agree with what I say.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>22. My friends and I are interested in the same things.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>23. I am able to cooperate with people even when they have different opinions.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>24. My friends are very open with me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>25. My friends become very angry when we disagree.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>26. Circle number 2 please.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>27. My friends are concerned about hurting other's feelings.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>28. During grade school, I had a say in what my friends did.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>29. My friends listen to me and want to hear what I have to say.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>30. My friends have a rigid idea of what is right and what is wrong.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>31. During grade school, my friends and I would fight instead of discuss our differences.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
32. My parents encourage me to express my opinions, even when we disagree. 0 1 2

33. My parents allow me to question the decisions they make. 0 1 2

34. During grade school (grades 1-6), my parents became angry when we disagreed. 0 1 2

35. I have a say in family decisions. 0 1 2

36. During grade school, my parents would punish me even if I did not mean to do something wrong. 0 1 2

37. During grade school, my parents explained to me how my behavior affected others. 0 1 2

38. During grade school, my parents hit me with their fists, a belt, or some other object. 0 1 2

39. My parents and I do not talk to each other very much. 0 1 2

40. During grade school, my parents were concerned if I hurt someone's feelings. 0 1 2

41. My parents listen to me and want to hear what I have to say. 0 1 2

42. Circle number 0 please. 0 1 2

43. My parents decide all the rules around the house. 0 1 2

44. My parents have a rigid idea of what is right and what is wrong. 0 1 2

45. My parents and I discuss our differences of opinion. 0 1 2

46. My parents give me responsibility. 0 1 2

47. My parents and I discuss matters without arguing. 0 1 2

48. My parents hit me if I do something wrong. 0 1 2

49. My parents are more concerned with what I do than why I do it. 0 1 2
APPENDIX G

NEUTRALIZATION MEASURE
In this next section, there will be a series of situations or short stories followed by some questions. Please read the stories and then answer the questions by marking the answer that comes closest to what you think about the story.

Jim intentionally set fire to a puddle of gasoline just to see what would happen. The fire spread to a nearby building.

**Morally, how right or wrong do you think Jim was for setting the fire?**

1. very wrong
2. somewhat wrong
3. neither right nor wrong
4. somewhat right
5. very right

**Do you think it was legally wrong to set the fire?**

1. yes, definitely
2. yes, probably
3. don't know
4. no, probably not
5. no, definitely not

**Do you think it should be legally wrong to set a fire like Jim did?**

1. yes, definitely
2. yes, probably
3. no, probably not
4. no, definitely not

**Legally, what do you think should happen to Jim for setting a fire like he did in the above situation?**

1. nothing
2. he should have to pay for any damage the fire caused
3. he should be fined by a court
4. he should have to go to jail
5. he should have to go to jail and pay for any damage the fire caused
Jim intentionally set fire to a puddle of gasoline just to see what would happen. The fire spread to a nearby building.

Morally, how right or wrong do you think Jim was for setting the fire if:

<table>
<thead>
<tr>
<th></th>
<th>(1) very wrong</th>
<th>(2) somewhat wrong</th>
<th>(3) neither right nor wrong</th>
<th>(4) somewhat right</th>
<th>(5) very right</th>
</tr>
</thead>
<tbody>
<tr>
<td>the wind changed direction</td>
<td>1:48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the fire caused only minor damage</td>
<td>1:49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the burned building was owned by a member of organized crime</td>
<td>1:50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>he set the fire to impress some friends</td>
<td>1:51</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legally, do you think it was wrong to set the fire if:

<table>
<thead>
<tr>
<th></th>
<th>(1) yes, definitely</th>
<th>(2) yes, probably</th>
<th>(3) no, probably not</th>
<th>(4) no, definitely not</th>
</tr>
</thead>
<tbody>
<tr>
<td>the wind changed direction</td>
<td>1:52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the fire caused only minor damage</td>
<td>1:53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the burned building was owned by a member of organized crime</td>
<td>1:54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>he set the fire to impress some friends</td>
<td>1:55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legally, do you think it should be wrong to set a fire like Jim did if:

<table>
<thead>
<tr>
<th></th>
<th>(1) yes, definitely</th>
<th>(2) yes, probably</th>
<th>(3) no, probably not</th>
<th>(4) no, definitely not</th>
</tr>
</thead>
<tbody>
<tr>
<td>the wind changed direction</td>
<td>1:56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the fire caused only minor damage</td>
<td>1:57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the burned building was owned by a member of organized crime</td>
<td>1:58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>he set the fire to impress some friends</td>
<td>1:59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legally, what do you think should happen to Jim for setting the fire if:

<table>
<thead>
<tr>
<th></th>
<th>(1) nothing</th>
<th>(2) have to pay for damages</th>
<th>(3) be fined by a court</th>
<th>(4) be sent to jail</th>
<th>(5) be sent to jail and pay damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>the wind changed direction</td>
<td>1:60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the fire caused only minor damage</td>
<td>1:61</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the burned building was owned by a member of organized crime</td>
<td>1:62</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>he set the fire to impress some friends</td>
<td>1:63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
John broke a window at the public school he attends, but John claims it was an accident. When the principal heard about the window, he kicked John out of school for three weeks without looking into the matter further.

**Moral**ly, how right or wrong do you think the principal was for kicking John out of school like he did?

- (1) very wrong
- (2) somewhat wrong
- (3) neither right nor wrong
- (4) somewhat right
- (5) very right

Do you think it was **legal**ly wrong to kick John out of school this way?

- (1) yes, definitely
- (2) yes, probably
- (3) don't know
- (4) no, probably not
- (5) no definitely not

Do you think it should be legally wrong to kick a student out of school in the way the principal kicked John out?

- (1) yes, definitely
- (2) yes, probably
- (3) no, probably not
- (4) no, definitely not

Legally, what do you think should happen to the principal for kicking John out of school in the way he did?

- (1) nothing
- (2) he should have to let John back in school and erase the matter from his records
- (3) he should have to pay John money
- (4) he should be fined by a court
- (5) he should have to go to jail
John broke a window at the public school he attends, but John claims it was an accident. When the principal heard about the window, he kicked John out of school for three weeks without looking into the matter further.

**Morally, how right or wrong do you think the principal was for kicking John out of school if:**

<table>
<thead>
<tr>
<th>(1) very wrong</th>
<th>(2) somewhat wrong</th>
<th>(3) neither right nor wrong</th>
<th>(4) somewhat right</th>
<th>(5) very right</th>
</tr>
</thead>
<tbody>
<tr>
<td>the principal thought he was only following school policy.</td>
<td>2:16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John was thinking about dropping out of school anyway.</td>
<td>2:19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John had a reputation for selling drugs.</td>
<td>2:20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the principal knew some of the teachers did not like John.</td>
<td>2:21</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legally, do you think it was wrong to kick John out of school this way if:**

<table>
<thead>
<tr>
<th>yes, definitely</th>
<th>(2) yes, probably</th>
<th>(3) don't know</th>
<th>(4) no, probably not</th>
<th>(5) no, definitely not</th>
</tr>
</thead>
<tbody>
<tr>
<td>the principal thought he was only following school policy.</td>
<td>2:22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John was thinking about dropping out of school anyway.</td>
<td>2:23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John had a reputation for selling drugs.</td>
<td>2:24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the principal knew some of the teachers did not like John.</td>
<td>2:25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legally, do you think it should be wrong to kick John out of school this way if:**

<table>
<thead>
<tr>
<th>yes, definitely</th>
<th>(2) yes, probably</th>
<th>(3) no, probably not</th>
<th>(4) no, definitely not</th>
</tr>
</thead>
<tbody>
<tr>
<td>the principal thought he was only following school policy.</td>
<td>2:26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>John was thinking about dropping out of school anyway.</td>
<td>2:27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>John had a reputation for selling drugs.</td>
<td>2:28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the principal knew some of the teachers did not like John.</td>
<td>2:29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legally, what do you think should happen to the principal for kicking John out if:**

<table>
<thead>
<tr>
<th>nothing</th>
<th>pay John money</th>
<th>get a court fine</th>
<th>be sent to jail</th>
</tr>
</thead>
<tbody>
<tr>
<td>the principal thought he was only following school policy.</td>
<td>2:30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>John was thinking about dropping out of school anyway.</td>
<td>2:31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>John had a reputation for selling drugs.</td>
<td>2:32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the principal knew some of the teachers did not like John.</td>
<td>2:33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX H

VALUES MEASURES
PERSONAL VALUES QUESTIONNAIRE

This questionnaire concerns things you value and consider important. We want to know how strongly you agree or disagree with a number of statements.

Let's take an example:


1. It is more important for a person to get his/her share of excitement in the present than to plan for the future.

2. It is important for a person to do the morally right thing regardless of the consequences.

3. It is important for a person to learn how to do things he/she will need to know when he/she is older.

4. It is important to have the latest things and to look ahead to better things.

5. It is important to work hard at trying to get ahead.

6. It is important to have good manners and to get along well with others.

7. It is important to be very careful with things that belong to others.
8. It is important for a person to be a success at what he/she does. SA A U D SD
9. It is important for a person to keep his/her mouth shut to authorities such as the police. SA A U D SD
10. It is important to be smart enough to be able to stay one jump ahead of others. SA A U D SD
11. You have to admire a person who can "con" or outsmart others. SA A U D SD
12. A person should learn to expect some kind of trouble almost everyday of his/her life. SA A U D SD
13. Planning only makes a person unhappy since your plans hardly ever work out anyway. SA A U D SD
14. It is important for a person to be tough or others will push him/her around. SA A U D SD
15. It is important to plan what lies ahead as much as possible. SA A U D SD
16. The ability to make a "fast buck" by any means is a trait to be admired in a person. SA A U D SD
17. It is important to be able to pass up things now in order to have things later. SA A U D SD
18. Hard work is for suckers. SA A U D SD
19. Fate and luck have no control over our lives. SA A U D SD
20. It is important to keep out of fights and rough stuff. SA A U D SD
21. People who devote most of their time to "thrill seeking" are just wasting valuable time. SA A U D SD
22. It is important for a person to be able to handle himself/herself and to be tough. SA A U D SD
23. It is exciting to take chances and live dangerously. SA A U D SD
24. It is important that a person be able to fit in with those around him/her. SA A U D SD
Please mark how often each of the following actions seems acceptable to you.

<table>
<thead>
<tr>
<th>Action</th>
<th>NEVER</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Usually</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fistfighting.</td>
<td></td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Taking something of small value from a rich person.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Destroying school property.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Sneaking into a movie or ball game without paying.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Physically hurting someone.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. It's okay to get around the law if you can get away with it.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX I

SELF-REPORT DELINQUENCY MEASURE
In answering the following questions, please remember that all of your responses will be kept confidential. No one except those working on this project will see your responses.

Research shows that everyone breaks some rules and regulations during his lifetime. Some break them regularly, others less often.

1. In the past year have you taken things of small value (worth less than $5) that did not belong to you?
   Yes ___ No ___ If yes, how many times? _____

2. In the past year have you taken things of some value (worth between $5 and $50) that did not belong to you?
   Yes ___ No ___ If yes, how many times? _____

3. In the past year have you taken things of large value (worth more than $50) that did not belong to you?
   Yes ___ No ___ If yes, how many times? _____

4. In the past year have you taken a car for a ride without the owner's permission?
   Yes ___ No ___ If yes, how many times? _____
   Who was the owner of the car? A relative ___ A friend ___ A neighbor ___
   A casual acquaintance ___ A stranger ___

5. In the past year have you purposely banged up or destroyed things of some value (worth between $5 and $50) that did not belong to you?
   Yes ___ No ___ If yes, how many times? _____

6. In the past year have you purposely banged up or destroyed things of large value (worth more than $50) that did not belong to you?
   Yes ___ No ___ If yes, how many times? _____

7. Not counting fights you may have had with your brother or sister, have you beaten up or hurt anyone on purpose in the past year?
   Yes ___ No ___ If yes, how many times? _____

8. In the past year have you attacked someone with a weapon other than your fists, willing to injure the person seriously if it came to that?
   Yes ___ No ___ If yes, how many times? _____
9. In the past year have you been drunk or high on drugs?
   Yes ___ No ___ If yes, how many times? ___

10. In the past year have you taken part in any of the behaviors listed in questions 1 - 8 while drunk or high?
    Yes ___ No ___ If yes, how many times? ___

11. In the past year have you taken part in any of the behaviors listed in questions 1 - 8 to get money for drugs or alcohol?
    Yes ___ No ___ If yes, how many times? ___

12. In the past year have you sold illegal drugs?
    Yes ___ No ___ If yes, how many times? ___